

The Structure and Interrelationships of the Self-Concept of the
Child and Those of His Mother, Parent Educator and Teacher.

by

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The purpose of this study was to examine the interrelationships of the self-concepts of the parent educators, mothers and children and the morale of the teachers in the Florida Model Follow Through program.

It was hypothesized that there was a relationship between mother's and child's self-concept measures and that the degree of this relationship was a function of the child's sex and socio-economic status. The changes in the parent educator's self-concept measures over the school year were hypothesized to be a function of the teacher's morale measured at the beginning of the school year. Mother's self-concept changes over the school year were hypothesized to be a function of the parent educator's self-concept measures at the beginning of the school year. Finally, it was hypothesized that changes in the child's self-concept over the school year were a function of the child's sex and socio-economic status and the pre-measures of teacher's morale and parent educator's self-concept.

Self-concept measures were collected on 354 K-3rd grade Follow Through children and their mothers. Morale measures were taken on twelve teachers and self-concept measures were collected on the twenty-four parent educators represented in the twelve classrooms. Ninety-nine mother-child pairs were chosen for the study sample because the data sets for each of the pairs was complete. The I Feel ... Me Feel, Self-Concept Appraisal Scale was used to measure the child's self-concept. The mothers' and parent educators' self-concepts were measured by the How I See Myself Scale and the Social Reaction Inventory. Teachers' morale was assessed using the Purdue Teacher Opinionnaire.

Mother's pre-measures of self-concept were correlated with the child's pre-measures of self-concept. This was done to determine whether the relationship between the self-concepts of mothers and children was a function of the child's sex and socio-economic status. No significant differences were found in relationship to the child's sex or socio-economic status.

Analyses of variance were run to determine whether the teacher's morale at the beginning of the school year was related to changes in self-concept and success of her parent educators over the school year and whether the parent educator's self-concept at the beginning of the school year was related to changes in the self-concepts of her mothers over the school year. The results of these analyses were not significant, though in general, parent educators tended to increase in three of four self-concept measures and mothers tended to decrease in two of four self-concept measures.

In an attempt to determine if the changes in the child's self-

concept were a function of the child's sex and socio-economic status and his teacher's morale and parent educator's self-concept, analyses of covariance were run on the child's change scores, with mother's self-concept measures being the covariates. No main effects were significant, though ten significant interactions of some or all of the four factors of the analyses emerged.

The conclusions of the study were 1) there is no correlation between mother's and child's self-concepts. 2) the way in which a child's self-concept changes over the school year is a function of the complex interactions of his sex and socio-economic status, his teacher's morale and his parent educator's self-concept.

The author suggested that, in further research, the way in which the parent educator in the Florida Model is viewed be studied so that the modes of self-concept transmission may be determined as a function of the perceived structure of the relationships between the teacher and the parent educator and the parent educator and the mother. It was also suggested, that, in addition to morale measures on the teacher, self-concept measures be taken so that the effect of the self-concept of the teacher on the students' self-concepts can be assessed.

CHAPTER I

INTRODUCTION

It has been shown that a child's self-concept is formed in large part by the feelings, attitudes, and actions of the significant others in his life. Since self-concept has been demonstrated to relate to behavior, it may be inferred that the self-concept of the significant others is related to how they experience and how they treat children. The self-concept of the child may be influenced by what is said to him, what he hears about himself, what is done for him and to him and how others behave around him. Could it not be, then, that the self-concept of the child bears a relationship to the self-concept of the significant other adults in his life?

Few studies have addressed themselves to this question. Yet it is crucial, for, if one can identify the effect a particular significant adult would have on a child's self-concept, one would have a superb tool for the selection of candidates for teacher training or those selected to work with children. Furthermore, it is clear that academic success is

related to his image of Self; if the goal of education be academic success, we may foster such success by providing significant others in the child's academic environment who may engender a more positive self-concept.

There is a modicum of research relating self-concept of children to the self-concept of significant others in their lives. For both teachers and mothers, self-concept seems to be related to those of their children. The extent of this relationship is not yet clear, nor is the relative effect of parents versus other adults apparent. It is usually measured in a one-time correlational fashion, rather than in any longitudinal manner. Although the theoretical position has been stated, we still lack considerable empirical verification.

Therefore it is

- 1) Analyze the relationship between the mother's self-concept and the child's self-concept as a function of the child's sex and socio-economic status,
- 2) Examine the relationship between the teacher's pretest (beginning of the school year) morale score and changes in the parent-educator's self-concept related measures,
- 3) Examine the relationship between the parent educator's pretest self-concept related measures and changes in the mother's self-concept related measures,
- 4) Analyze the changes in the child's self-concept measures as functions of the teacher's morale, the parent educator's self-concept related scores, and the child's sex and socio-economic status.

These purposes can be rephrased as four major questions:

1) Can the relationship between the mother's and the child's self-concept measures be a function of the child's sex and socio-economic status?

2) Can the change in the parent educator's self-concept measures over the school year be predicted from or related to the teacher's morale at the beginning of the school year?

3) Can the change in the mother's self-concept measures over the school year be predicted from or related to the parent educator's self-concept measures at the beginning of the school year?

4) Can the change in the child's self-concept measures over the school year be predicted from or related to the child's sex and socio-economic status and to the teacher's morale and the parent educator's self-concept measures at the beginning of the school year?

Limitations and Assumptions

It is assumed that self-concept can be measured by the following instruments:

- 1) The How I See Myself Scale (Gordon, 1968)
- 2) The Social Reaction Inventory (Bilker, 1970)
- 3) The I Feel . . . Me Feel Self Appraisal Scale
(Yeatts and Bentley, 1970).

Teacher's morale is assumed to be measured by the Purdue Teacher Opinionnaire (Bentley and Rempel, 1967).

Data to substantiate the reliability and validity of these instruments will be presented in Chapter II.

In the Florida Model, teaching skills are normally transmitted hierarchically, from the teacher to the parent educator and from the parent educator to the mother. The primary goal of these teaching efforts is an increase in the child's academic achievement. It is assumed that these efforts affect concomitant changes in the child's self-concept.

Other hypotheses in this study are based on the assumption that the adults in this teaching chain also, in the process of transmitting teaching skills, effect the self-concepts of the ones next to them in the chain. Thus, though the teacher, parent educator and mother all interact and may help each other, it is assumed that the important variable affecting the direction of the transmission of self-concept among the adults is the place of the individual in the academic environment. It is expected, then, that the teacher's morale will affect the parent educator's self-concept and success and that the parent educator's self-concept will affect the mother's self-concept.

Hypotheses

On the basis of the review of the literature (Chapter II) and the questions to which this study has addressed itself, this study was designed to test the following hypotheses:

- 1) The relationship between the child's self-concept measures and the mother's self-concept measures is a function of the child's sex.
- 2) The relationship between the child's self-concept measures and the mother's self-concept measures is a function of the child's socio-economic status.
- 3) Teacher's morale measure at the beginning of the school year is related to change in parent educator's self-concept measures and success over the school year.
- 4) Parent educator's self-concept measures at the beginning of the school year are related to change in mother's self-concept measures over the school year.
- 5) Child's sex is related to change in his self-concept measures over the school year.
- 6) Child's socio-economic status is related to change in his self-concept measures over the school year.
- 7) Parent educator's self-concept measures at the beginning of the school year are related to change in the child's self-concept measures over the school year.
- 8) Teacher's morale measure at the beginning of the school year is related to change in the child's self-concept measures over the school year.

9) Child's change in self-concept measures over the school year is related to an interaction of his sex and socio-economic status and the pre-measures of his teacher's morale and parent educator's self-concept.

Organization of the Study

This chapter has been an introduction to the study, presenting the purpose, posing problematic questions, clarifying assumptions and listing the hypotheses the study was designed to test. Chapter II will be a review of the literature and the instruments used in this study. Data will be presented to substantiate the reliability and validity of the instruments. Chapter III will deal with the source and treatment of the data. It will explain how the data was collected, define the sample and population from which it was drawn and present the statistical procedures used to analyze them. Chapter IV will present the results of the statistical procedures employed in this study and display the data and the results of these tests in the form of tables and figures. Chapter V will discuss the results. Chapter VI will be a summary, presenting conclusions, and implications for further research.

CHAPTER II

REVIEW OF THE LITERATURE

Significance of the Study

In recent years, the concept of the Self has been attracting more and more research, especially in schools of education. It has become widely recognized as one of the major factors in personality integration. The earliest writings on the concept of the self were mostly theoretical, and ideographic and based on a philosophic view of self. Gradually the reports came to follow a more empirical model.

As early as 1895, Baldwin reported on his observations of children and concluded that the child only gradually comes to understand what is "Self" and what is "not Self." He wrote that at first, "the child's sense of Self includes too much. . . . It includes the infant's mother and little brother and nurse in a literal sense." This concept of a gradually differentiated, gradually emerging self has remained. Piaget (1965) calls the earliest Self an "undifferentiated absolute" where there are no boundaries; neither between one's body and other objects nor

between reality and fantasy. The child is indifferent to thought and originality, his activities are concerned with imitation of the real world, ignoring the existence of Self. Only gradually, through visual, auditory and tactile stimulation (Murphy, 1947), through the appearance of the first-person pronouns (Gessell and Ilg, 1946)(Sherif and Cantril, 1947), and through other factors as social experiences, identification (first with mother -- then extending outward to encompass many others), projection and introjection, does the concept of self emerge. By the time a child is three, the self has become an integrated pattern (Gessell and Ilg, 1946). The concept of self is still subject to continuous modification but with less and less effect as the child grows older. Murphy (1947) describes one way through which the self-concept is continuously modified throughout early childhood. He states that the child still trusts more in the perception of adults than in his own direct experience. Consequently, the way adults in his environment experience him, the adjectives they use to describe him, the evaluative valences they place on him all gradually become taken over by him as his own.

As Sullivan (1953) had noted earlier, the self is constituted from the "reflected appraisals" of significant others. Silver (1958) found that self-concept ratings were associated with perceived measures of peer acceptance, but not with actual measures of peer acceptance and thus were a measure of perceived interpersonal adequacy. Medinnus and Curtis (1967) found that

the extent to which a positive self-concept develops depends upon the extent to which he is accepted by the "significant others" in his early life. Gordon (1959) states that how a child's behavior is received by significant adults, especially in the family circle, is important in the formation of a child's self image. Combs and Snygg (1959) also emphasize the significance of the family in the early development of the child's self-concept.

Mistry (1960) suggested that emotional security and a democratic environment were most conducive to a realistic, positive self picture, while overindulgence was least conducive.

It is clear that the self-concept of a child may be formed, influenced and modified by the significant others in his environment. Most children over five spend a large percentage of their time in an academic environment or engaged in school activities. The adults in his academic environment, including his mother, may be significant in molding the child's early self-concept.

Self-Concept and Significant Others

Mother-Child Relationship

A study carried out at the University of Florida took self-concept measures from 323 Florida Model Follow Through kindergarten and first grade children and their mothers at the beginning and end of the 1968-69 school year. The mothers and children

were compared with a variety of statistical techniques. The author concluded that 1) mother's self-concept measures (How I See Myself and Social Reaction Inventory) are related to children's self-concept measures (Child's Self-Social Constructs Test) and 2) mother's self-concept measures taken at the beginning of the school year are related to change in children's self-concept measures over the course of the year (Tocco, 1970).

Wechsler (1971) hypothesized that one way to improve the self-acceptance of an underachieving child might be to improve the mother's attitude toward the child. Mothers of under-achievers underwent group counseling. The boys achieved an increased self-acceptance and a sustained academic improvement. Achievement was measured by the California Test of Mental Maturity, while self-concept was measured by five sorts of the Catterall-Reece, Ipsative, True-Ideal, Q-sort Upper Elementary Test. Underachieving boys whose mothers did not undergo counseling did not improve on either measure.

Teacher-Child Relationship

A study which addressed the question of whether there were relationships between the self-concepts of children and their teachers was cited by Blume (1968). Self-esteem scores of twenty-six teachers were compared with the children in their classes. As suspected, the similarity was quite high. Scores on all the children in each teacher's class were recorded for two years. Teachers who scored high in self-esteem had pupils

who scored high as well, and this was true for both years of the study. Blume states, "It would seem that if we want to develop children with high self-esteem, we should first of all provide them with teachers who have high self-esteem." Trowbridge (1970) divided sixty-four classrooms into two groups: teachers who had special training in human relations and those who had not. Childrens' self-concept was measured by the Coopersmith Self-Esteem Inventory and found to be significantly higher in the classrooms whose teachers had the special training. These studies indicate the strong influence that a teacher's behavior and self-concept may have on her pupils' self-concepts.

Noting the impact of significant adults on the child's emergent self, Jersild (1952) writes of the main task of education as being to aid the child in self-understanding and self-acceptance. Staines (1958) inferred that traditional classroom procedures neglect consideration of the effect of teachers on the child's emergent self. To explore this, he engaged in a series of classroom observations. He found that teachers can be differentiated according to the number and type of self-concept charged remarks they made. He found, further, that by differential use of positive and negative comments relating to child's performance, status (relative to others in the class), self-confidence and potency, teachers differentially affected the child's self-concept.

Self-Concept and Achievement

Concerning the self-concept and academic achievement, Davidson and Lang (1960) found that a child's perceptions of his teacher's feelings toward him are related to the child's own self perceptions. To measure self perceptions and the perception of the feelings of others, adjective checklists like those used by Allport (1936), Gough (1955) and Hartshorne and May (1930) were scanned for appropriate words; a composite list was assembled. They found that academic achievement as well as classroom behavior was related to those self perceptions. A study by Brookover, Thomas and Patterson (1964) demonstrated a positive relationship between academic achievement and self-concept for a sample of white students, controlling for intelligence and ability. They used two forms of an eight-item multiple choice questionnaire as a "Self-Concept of Ability Scale."

The research indicates that self-concept is seen as a major factor in the academic achievement of the child. Summarizing the literature, Purkey (1967) asserts that inadequate concept of self is related to underachievement and similarly that an adequate self-concept may facilitate academic achievement.

Further, it is theoretically clear that the self-concept of the child is related to those of his mother and his teacher. The empirical evidence is still slight and the data are lacking in several closely related areas. The effect of another significant adult in the academic environment on the child's self-concept has

not been determined. Teacher's morale, a potentially significant factor in the classroom has not been related to the child's self-concept. Finally, the interrelationships between the child's self-concept and those of the significant others in his academic environment have not been examined. These are areas with which this study will deal.

Self-Concept and Sex

The relationship between academic success and self-concept was found to be a function of sex. Shaw, Edson and Bell (1960), Shaw and Alves (1963) and Fink (1962) indicate a positive relationship between achievement and feelings about self for males, but no consistent trends for females. To measure self-concept, Shaw, Edson and Bell used the Sarbin Adjective Checklist (Sarbin, 1955). In the Shaw and Alves study, self-concept was measured by the Bills Index of Adjustment and Values (Bills, 1958). Fink assessed self-concept using three judges, who based their opinions on data from the California Psychological Inventory, the Bender Gestalt Test, the Draw-a-Person Test, the Gough Adjective Checklist (completed by both pupil and teacher) a personal data sheet and an essay describing, "What I will be in twenty years."

In many subcultures of our society, academic success and achievement is stressed more for males than for females. This success, furthermore, is probable differentially reinforced for

males while it may be met with unconcern or disapproval for females. Females may derive maternal reinforcement for household skills or social success. Austin (1970) found that the development of learning disabilities in black children was associated with the mother's high expectation for their sons to show earlier competence in areas such as self-feeding, toilet training and dressing. Reimanis (1970) found males who developed a more internal locus of control of their environment had warm, supportive and consistent homes. Chance (1965) along similar lines, found that children who had warm accepting mothers who expected and rewarded competence tended to have high preference for achievement. Maternal attitudes were more related to child's control beliefs for males than for females. Bayley and Schaeffer (1964) found that boys' intelligence was strongly related to the love-hostility dimension of maternal behavior. Herman (1970) found different patterns of influence of Negro mothers' maternal variables (which included the How I See Myself Scale and the Social Reaction Inventory) for males and females. She showed that on three Bayley infant scales, high scoring males were discriminated most effectively from high scoring females by mother's Interpersonal Adequacy factor score on the How I See Myself Scale. Mothers tended to have higher maternal variable scores and a more internal Social Reaction Inventory score for males than for females. Etheridge (1971) demonstrated that such a basic variable in the development of a child as the mother's style of mothering was significantly affected by the sex of the infant.

Mothers felt and responded differently towards male and female infants. Moreover, male and female infants were differentially affected by similar patterns of mothering. He found that males' performance, particularly mental performance, was more related to the style of mothering than females'.

It is expected that the transmission of various aspects of the mother's self-concept, so closely related to her style of mothering and meting out of reinforcement, will be a function of the sex of her offspring.

Self-Concept and Socio-Economic Status

There is evidence in the research that self-concept and achievement are related to the child's socio-economic class. Gordon (1968) in a study of the How I See Myself Scale showed socio-economic status to be a factor in the development of children's self-concepts. He found that, in general, higher socio-economic level children had higher self-concept scores on several factors of the How I See Myself Scale than lower status children. Socio-economic status was determined by the father's occupation. Soares and Soares (1971) determined the self-concepts of advantaged and disadvantaged youths using as a scale a list of thirty-six bi-polar traits borrowed from the M.M.P.I. Disadvantaged children were those selected from slum and low-income housing areas. They found that the disadvantaged youths had more positive self-concepts than the advantaged youths.

Relating self-concept and achievement as a function of socio-economic status, they found a significant discrepancy between expected and actual grades for disadvantaged boys; advantaged youths were more realistic in terms of aspiration and achievement. Allport (1961) states that people tend to overrate themselves on self-concept scales. This trait, in addition to the fact that both self-concept and socio-economic status were determined by different methods in the studies by Gordon and Soares and Soares, may be more marked in underprivileged classes to deny perceived disadvantages and thus explain the discrepancy between these two studies.

Locus of Control and Socio-Economic Status

Battle and Rotter (1963) determined locus of control in children by a Bialer questionnaire. They found that low socio-economic class (determined by father's or mother's occupation) was related to a feeling of powerlessness (externality). Dean (1961) reports similar findings. Franklin (1963), Crandall et al. (1965) and Strodbeck (1958) found that the lower the socio-economic class of an individual, the more likely he will be external. The importance of this relationship to the transmission of self-concept variables is presented in a study by Phares (1965). Phares indicates that internally oriented people are able to induce significantly greater changes in the expressed attitudes of others than externally controlled ones. This may indicate that internals have more influence in changing the child's

self-concept than externals. The literature on locus of control (see p. 24) suggests then, that the relationship between the self-concepts of mother and child would be greater for internally controlled mothers (middle and upper classes). Samuels (1969) confirms this, indicating that the relationship of maternal self-esteem and the child's self-concept is higher in middle class families than in lower class families. The correlation was found to be .55 for the middle class and .26 for the lower class.

Bayley and Schaeffer (1964) and Samuels (1969) indicate that many personality and behavioral traits of the mother tend to be functions of the mother's socio-economic class. They found low socio-economic status mothers to be controlling, irritable, and primitive, while higher socio-economic status mothers were warm and accepting. Bayler and Schaeffer found that higher socio-economic girls and lower socio-economic boys were given more autonomy and freedom from supervision. These studies all indicate that socio-economic status is a factor in the transmission of self-concept from mother to child. The socio-economic status of the child may also be related to how his self-concept is influenced by other factors in his environment.

The research indicates that the transmission of self-concept is largely a one-way process between adults and children. The adult's self-concept is more powerful in determining the self-concept of the child, than is the child's in affecting the self-concept of the adults in his environment. Grant (1967) found that adults' self-concepts do change as a function of age,

generally becoming more positive (possibly as a denial of one's faults), but the way in which adults effect changes in the self-concepts of other adults has not been made clear. It is likely that other adults, perceived as authorities or superiors, would be more powerful in affecting one's self-concept than other adults, viewed as inferior or subordinate.

Measurement of Self-Concept

The above cited studies used a variety of instruments and methods to measure self-concept. Part of the problem in studying the self is that operational definitions of the self-concept differ within the body of research. In this review, self-concept has been measured and determined by standardized instruments as the Coopersmith Self Esteem Inventory, the Catterall-Reece Test, the How I See Myself Scale and the Rotter Internal-External Scale (and related scales such as the Social Reaction Inventory and the Bialer Locus of Control), by various forms of adjective checklists as those developed by Allport (1936), Gough (1955), Hartshorne and May (1930) and Sarbin (1955) and by the decision of a group of judges using projective psychological tests as data.

The author did not specifically choose the instruments used in this study. The instruments were currently in use throughout the Florida Model program to measure self-concept and morale. Except for the I Feel . . . Me Feel (child's self-concept

instrument), all had been used in previous studies originating at the Institute for the Development of Human Resources, the source of this study. These instruments reflect the view that self-concept can be determined effectively by self-report techniques. Although a variety of instruments were presented in the review of the literature to measure self-concept, all the studies with the exception of Fink's (1962) employed self-report to examine self-concept. Fink relied on the opinion of a number of judges using projective-techniques to determine self-concept. Therefore, the use of self-report measures, as long as it is clear that this is only one way to assess self-concept, fits into the general research literature.

The research presents much groundwork leading us to investigate the structure and interrelationships of the self-concept of the child and those of the significant adults in his academic environment.

The objectives of this study are to determine the effects that significant adults have on the child's self-concept as a function of the child's sex and socio-economic status. Concerning the mother-child relationship, we hope to identify the unique ways in which mothers affect their children's self-concepts as a function of socio-economic status and the child's sex. It has been shown (Wechsler, 1971) that knowledge of these interactions would aid in guiding the mother to establish new patterns of behavior with her children that might produce positive changes in the child's self-concept and academic achievement. Having identified the effects of specific other adults on

the child's self-concept, one would have a superb tool for the selection of candidates for teacher training and those selected to work with children. Conversely, knowledge of the relationships between the child's self-concept and those of the significant adults in his academic environment would enable one to place a child who is having problems academically or emotionally with respect to self-concept in a class with a teacher and parent educator whose traits would be most conducive in producing positive changes in the child.

The Instruments

The I Feel . . . Me Feel, Self Concept Appraisal Scale (Yeatts and Bentley, 1970) was designed so that it could measure the self-concept of young, low verbal individuals. The test was constructed from the analysis of self-concept charged remarks made by children in grades kindergarten through three. Recordings of these remarks were made in the classroom, lunchroom, playground and bathrooms. Forty items were generated from the remarks concerning the children's feelings towards his body in action, academics, adult figures, and peer social interaction. The responses to these items are easily validated by classroom observations. The test presents its own content validity because the items were derived from the children's own reports of their concerns about themselves in a manner described by Jersild (1952).

To determine construct validity, the forty items were administered to 879 children in grades kindergarten through three. Teachers were asked to rate each child according to their interpersonal skills with adults and other children. Test scores on the Metropolitan Reading Test (for kindergarteners) and the California Achievement Test (Language Score) (first through third graders) and the California Achievement test (Math Score) (second and third graders) were acquired from the children's permanent records. Pearson product-moment correlations between the total self-concept scores and the academic test scores and teacher's ratings were used to evaluate construct validity. For grades kindergarten through three the correlations ranged from .72 to .84, with a mean of .79.

Reliability was determined by readministering the items nine days after the original testing. Test-retest reliability ranged from .78 to .86 for grades kindergarten through three, with a mean of .82.

The test items were then depicted to accompany the written self-concept questions. The pictures were modified by an artist through descriptions from a team of twenty educators including Negroes, Caucasians and Orientals. The picture was accepted when the team judged it to be free of socio-cultural bias.

The five factors used in this study emerged from a factor analysis of the original test using 4,296 subjects. Reliability and normative data for these factors have not been collected.

The How I See Myself Scale (Gordon, 1968) was designed to provide measures of various aspects of a child's self-concept. Material from Jersild (1952) provided the basis for the development of scale items. Gordon (1968) states, ". . . self-concept is not a unitary trait." The scale was composed of questions referring to emotions, physical appearance and abilities, school, and social-interpersonal skills or interests.

An early form of the test was administered to the students at the P. K. Yonge Laboratory School of the University of Florida in January, 1959. Subjects included students from grades three, five, six, seven, ten, and twelve. The test was revised in the spring because of some language ambiguities discovered in the original testing.

Concerning content validity, Gordon (1968) operationally defines self-concept as, ". . . the reported portion of one's self." Further, the Scale concerns reports of the self in the school setting where items may ". . . be related to observable pupil behavior and thus by inference are 'public'" (Gordon, 1968, p. 33).

The scale items are based on responses described by Jersild (1952) as meaningful on the basis of children's responses to open-ended questions. "Each area found by Jersild to yield a meaningful percentage of pupil responses, was translated into a scale item. Items included samples from the universe of possible items in respect to teachers, school, same and opposite sex peers, emotions and physical attributes" (Gordon, 1968, p. 32).

The How I See Myself Scale does not purport to measure perceptions of the self in relation to family members. Although people tend to overrate themselves, Allport (1961, p. 411) points out, "Self rating is the most direct method of obtaining quantitative self-appraisal."

A correlational study was performed (Gordon, 1968) to indicate whether self-concept factors as measured by the How I See Myself Scale were related to the Social Reaction Inventory (Bilker, 1970). A significant positive correlation was found between internality as measured by the S. R. I. and the Interpersonal Adequacy factor of the How I See Myself Scale, for lower class Negro mothers in the Parent Educator Project (Gordon, 1967). The S. R. I., a modified form of the Rotter Internal-External Scale (Rotter, 1966), indicates the degree to which individuals view their lives as a function of chance. This measure, significantly related to self-concept, indicates that the concept of interpersonal adequacy is positively related to a perceived internal locus of control of the environment.

Test-retest reliability of the children's form of the How I See Myself Scale was studied by administering the test to the P. K. Yonge students in the spring of 1959; two months later it was readministered. Reliability ranged from .62 to .82 on the five children's factors, with a mean of .74.

Yeatts (1967) performed a reliability study on the total score of the How I See Myself Scale. She sampled a portion of her subjects from a factor analytic study of the Scale performed

in Alachua County, Florida. She readministered the test nine days after the original testing. Test-retest reliability ranged from .78 to .89 for grades three, five, eight, and eleven, with a mean of .84.

The form of the How I See Myself Scale used in this study was modified for use with disadvantaged mothers. Items referring to boys, girls, school subject matter, and games were changed to refer to men, women, housework and parties, respectively. To test the reliability of the test, mothers were selected who were from the same social class as mothers in the Parent Educator Project (Gordon, 1967) and tested in the spring of 1967. The test-retest interval was two weeks. Correlations for the factors used at that time ranged from .45 to .82, with a mean of .64.

The form of the How I See Myself Scale used in this study was refactored (Gordon and Jaffee, 1970) for use in the Follow Through project, but no reliability data has been available. All forms and previous factors of the Scale have been demonstrated to be reliable; it is assumed that the refactored scale, too, is reliable.

The Social Reaction Inventory was modified by Bilker (1970) from the Rotter Internal-External Scale (Rotter, 1966). The test contains twenty-nine items, six of which are fillers, and yields one total score. The Social Reaction Inventory is used to determine, by forced choice responses, a perceived level of external control of the environment (powerlessness).

The reliability of the Rotter Internal-External Scale has been determined by several studies. Rotter (1966) reported test-retest reliabilities in the .70's for one-month test intervals. Kiehlbauch (1968) showed a three-month reliability of .75. Gordon (1969) reported a test-retest reliability of the Social Reaction Inventory of .78 with an interval of two weeks.

The predictive validity of the Internal-External Scale has been assessed through some studies which relate the Scale to personality attributes. Butterfield (in Lefcourt, 1966b) indicated that internals (low external score) view themselves as goal-oriented workers striving to overcome hardships while externals depict themselves as anxious, suffering, and more concerned with their emotional response to failure than with achievement. Ware (Rotter, 1966) found a significant correlation of .24 between externality and the Taylor Manifest Anxiety Scale, although Effran showed none using the same measures (Rotter, 1966). Clouser and Hjelle (1970) found the externals were more dogmatic than internals. Eysenck (1961) found that differences between neurotics and psychotics were related to a scale of introversion-extroversion, a construct similar to the internal-external continuum.

James (1957), Battle and Rotter (1963), Phares (1957) and Simmons (1959) have found externals more prone to expect to win after a series of failures (gambler's fallacy). Further, they found externals more variable and unrealistic in the setting of goals. Rotter, Liverant and Crowne (1961) indicate that subjects

learn more when reinforcement comes from situations requiring skill not chance. Under external control conditions, James and Rotter (1958) found individuals less resistant to extinction. Seaman, Melvin and Evans (1962) demonstrate that powerlessness, a sense of alienation as determined by a form of the Rotter Internal-External Scale (Rotter, 1966) is conducive to poor learning.

Coleman et al. (1966) related academic achievement to students' interest in school, self-concept and sense of control of the environment. No racial differences existed on students' interest of self-concept measures, but Negroes and other minority groups expressed a much lower sense of control of the environment. Disadvantaged white children acted as members of a minority group. They had a lower sense of environmental control than advantaged whites. Achievement for advantaged groups was related more to self-concept than control of the environment, while for disadvantaged children achievement appear to be related to what they believe about the environment: whether they believe their environment will respond to reasonable efforts, or whether they believe it is immovable or affected by chance.

Lefcourt (1966a, 1966b) summarizes the relationship between social class and locus of control by suggesting that factors in the relation between externality and ethnic and social class membership have largely to do with the minimal power held by the individuals of certain social classes and ethnic groups.

He states, "From this investigation . . . external control orientation characterizes groups that are minimal in our society (1966a, p. 189)." There is evidence that maladaptive patterns of behavior associated with failure, fear of failure and the setting of unrealistic goals are associated with feelings of being controlled by the environment. The magnitude of these feelings may be inferred to be a measure of perceived self and as such are a part of the self-concept for the purposes of this study.

Studies attempting to show a relationship between intelligence and externality are inconclusive. Studies such as those by Strickland (1962) and Ladwig (1963) showed no relationships, though Cardi (1967) showed Ohio State women's Internal-External scores to be correlated $-.22$ with intelligence; Simmons (Rotter, 1966) found the correlation to be $-.47$. Rotter reported that college-bound students scored lower (more internal) on the Internal-External Scale than high school students not selected for college.

The Purdue Teacher Opinionaire (Bentley and Rempel, 1967) was designed to provide a measure of teacher morale. The instrument was first developed in 1961 and consisted of 145 items and yielded eight factors. The present revised form has 100 items and yields ten factors and a total score.

Validity was tested on the original form by asking teachers to rate several of their peers as having the highest morale

and an equal number as having the lowest morale. High morale was defined as evident when there was interest in and enthusiasm for the job. The excluded teachers formed the "middle" group. On the basis of the judgements, the three groups were identified and mean Opinionaire scores calculated for each group. The morale of each group as measured by the Opinionaire was significantly different (.05 level) from each other and in the expected direction. Validity of the revised form was studied by asking the principals of schools in two states to react to the Opinionaire items as they believed the faculty would react. No significant differences between the median teachers' scores and median principal's scores were found.

The revised form of the Opinionaire was administered in seventy-six schools to test its reliability. Four-week test-retest correlations for 3023 teachers ranged from .62 to .88 for the ten factors. Total score reliability was .87.

The Parent Educator Weekly Report was developed and modified by and for the use of the eleven Florida Model Follow Through communities in the program in the 1970-71 school year. The version for that school year consisted of forty-one items. The Report covers four areas of the home visit: 1) general visit information, 2) the present week's mother task, 3) the last week's mother task, and 4) general information -- home and community.

Visit information concerns the tone of the visit and the people present during the visit (child, siblings, relatives,

visitors, etc.)). Responses to questions about the present task concern the mother's reaction to the instructions and her ability to repeat them successfully. The last week's task questions probed the mother's feelings about the task's value, how much time was spent with it and the mother's feelings about the child's reactions to the task. General information reveals the type of referral information that was given to the mother concerning medical, psychological, social and educational services in the community and about which services the mother inquired. The general information section also gives information about the mother's interest and participation in the school and school activities.

The Parent Educator success score was generated from eleven items which indicated the quality and number of receptions of the parent educator into the home, as well as the mother's interest in school activities and community educational resources.

The Parent Educator Weekly Report is a combination of objective and subjective reports of the home visit. Both facts and opinions are presented in a complete report. The questions, however, are straightforward and simple and possess a high degree of face validity about the home visit. The report reflects the quality of a single home visit by an individual parent educator. No reliability tests have been run on this instrument. The success score was produced by a summing of eleven item responses, normalized and standardized for the twenty-four parent educators in this study, with scale directions adjusted so that higher scores for each item response would reflect parent educator success.

TABLE 1.

Items Used to Generate Parent Educator Success Score.

1. The visit was
 - a) attempted and completed (1 point)
 - b) attempted and not completed (no points)
2. The tone of the visit was
 - a) warm (4)
 - b) cool with cooperation (3)
 - c) cool without cooperation (2)
 - d) hostile (1)
3. How did the mothering one react to your instructions?
 - a) interested (3)
 - b) neutral (2)
 - c) disinterested (1)
4. Did the mothering one visit the school last week?
 - a) yes (1)
 - b) no (0)
 - c) this information neither requested nor given (0)
5. If the mothering one visited the school, did she work in the classroom?
 - a) yes (1)
 - b) no (0)
 - c) she did not visit the school (0)
 - d) this information neither requested nor given (0)
6. Did the mothering one or any of the Follow Through child's relatives attend the last Policy Advisory Committee Meeting?
 - a) yes (1)
 - b) no (0)
 - c) this information neither requested nor given (0)
 - d) this information not available (0)

7. Did the mothering one attend any parent group meeting dealing with the school program last week?
 - a) yes (1)
 - b) no (0)
 - c) this information neither requested nor given (0)
8. Did the mothering one inquire about or request psychological or educational services information?
 - a) yes (1)
 - b) no (0)
9. Did the mothering one offer information or suggestions for tasks?
 - a) yes (1)
 - b) no (0)
10. Did the mothering one initiate discussion of the school behaviors or achievement of the child?
 - a) yes (1)
 - b) no (0)
11. Were any plans discussed or made for the mother to visit the school?
 - a) yes (1)
 - b) no (0)

Conclusion

The research has indicated that the child's self-concept is related not only to his mother's, but to that of his teacher. The relationship of significant others to the child's self-concept is not clear, nor are the interrelationships of the self-concepts of the child and the significant others in his academic environment.

The instruments used in this study enabled us to measure teacher's morale, parent educator self-concept and success, and the self-concept of mother and child.

It has been hypothesized that the teacher will affect the self-concept of the parent educator and that the parent educator will affect the self-concept of the mother. These hypotheses were based on the assumption that a teaching chain existed, and that each member affects the ones next to him in self-concept measures. The research also reveals that factors such as the child's sex and socio-economic status affects the relationship of the self-concept of the child and his mother. It has been hypothesized that sex and socio-economic status may be factors that discriminate the ways in which the child's self-concept changes.

These hypotheses have been stated in Chapter I. The next chapter will deal with the source and treatment of the data.

CHAPTER III

SOURCE AND TREATMENT OF THE DATA

Instruments

The child's self-concept was measured by the I Feel . . . Me Feel Self-concept Appraisal Scale (Yeatts and Bentley, 1970). Mother's and parent educator's self-concept was measured by the How I See Myself Scale (Gordon, 1968) and the Social Reaction Inventory (Bilker, 1970). Teacher's morale was measured by the Purdue Teacher Opinionaire (Bentley and Rempel, 1967). The Parent Educator Weekly Report, developed in the various Florida Parent Educator Projects since 1966, was used to provide a measure of parent educator success.

The I Feel . . . Me Feel Scale developed by Yeatts and Bentley (1970) consists of five factors: 1) General Adequacy, 2) Peer, 3) Teacher-School, 4) Academic and 5) Physical.

The How I See Myself Scale developed by Gordon (1968) yields four factors: 1) Interpersonal Adequacy, 2) Social-Male, 3) Physical and 4) Competence. These four factors are the result of a refactoring of the How I See Myself Scale (Gordon and Jaffee, 1970).

The Social Reaction Inventory was modified by Bilker (1970) from the Rotter Internal-External Scale (1966). The Social Reaction Inventory yields one measure of internal versus external control of the environment.

The Purdue Teacher Opinionaire developed by Bentley and Rempel (1967) yields ten morale factors and a total factor score. The total score indicates the general level of teacher's morale and is the only measure derived from the Opinionaire that is used in this study.

The Parent Educator Weekly Report, developed for the Florida Model Follow Through Project consists of forty-one items concerning the home visits, weekly mother tasks, and mother's interest in the school and community services and resources. Eleven of these items, which reflect the quality and quantity of the receptions of the parent educator into the home as well as the mother's interest in school activities and community educational resources, were used to give a single measure of parent educator success. (See Table 1, p. 29 for items.)

Collection of the Data

In the summer of 1970, before the start of the 1970-71 school year, copies of all the instruments necessary for pre-testing (September, 1970) and post-testing (May, 1971) were sent by mail to the Follow Through coordinator to be distributed amongst the classrooms participating in the program.

The instruments for the teachers and parent educators were self-administered at the beginning (September, 1970) and at the end (May, 1971) of the school year. Upon completion, they were sent to the Institute for the Development of Human Resources, University of Florida, to be coded, punched onto computer cards and stored on a magnetic tape until they were to be retrieved for analysis.

The parent educators were trained to administer the I Feel . . . Me Feel Scale to the students. This duty was accomplished with each child, individually, during school hours.

The parent educator also had the responsibility of making home visits. She was trained to 1) administer the How I See Myself Scale and the Social Reaction Inventory to the mother and 2) instruct the mother how to use the educational tasks with her child that were developed in the school. Upon completion of her data collection functions, the parent educator sent the protocols back for entry into the data bank.

During the home visits throughout the year, on roughly a once-a-week basis, the parent educator presented tasks to the mother and determined whether the mother understood how to use the task with her child. In addition to the task phase of the visit, the mother was asked questions necessary for the parent educator to complete a Parent Educator Weekly Report. The reports were mailed back periodically to be deposited in the data bank.

Population and Sample

The population of children to which this study had access were children in Follow Through classrooms. This accessible population consisted of 354 children in twelve classrooms, three at each grade level, kindergarten through third grade. The population of significant others consisted of the 354 mothers of the children in the accessible population, the twelve teachers and twenty-four parent educators, two in each class.

The sample of the teachers and parent educators was identical to the accessible population. Children and their mothers were included in the sample for this study if the data set for each pair was complete. Ninety-nine mother and child pairs fulfilled this requirement. Of the children, fifty were male and forty-nine were female. Forty-three came from low socio-economic status families¹; fifty-six were of high socio-economic status². Ninety-four of the children were Caucasian; five were Negro. The teachers and parent educators were female Caucasians.

Statistical Procedures

This study was designed to determine the interrelationships of the self-concept of the child and those of his mother, parent

¹Families with incomes below the poverty lines as determined by O.E.O. standards (See Appendix 1).

²Families with incomes above the poverty line.

educator and teacher. Figure 1 (below) represents the teaching chain (See p. 4) and the directions and relative magnitudes of the hypothesized transmission of self-concept variables.

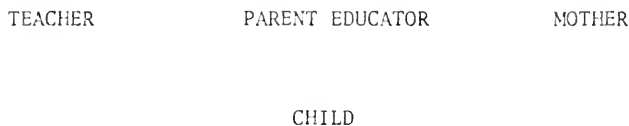


Figure 1. The Teaching Chain

The literature indicates that the relationship between mother and child may be most significant in determining the child's self-concept. To test hypotheses one and two intercorrelations (Pearson r 's) of the five factors of the child's self-concept and the five factors of mother's self-concept were computed. The matrices of these intercorrelations enable us to see the relationships between specific pairs of mother and child self-concept variables.

Before analyzing the effects of the self-concepts of significant others on the child's self-concept, we attempted to determine the relative effects of the teacher's morale on her parent educators' self-concept and success as well as the effects of the parent educator's self-concept on her mother's self-concepts. These relationships were examined through use of a single-factor model (Winer, 1962). (See Figures 2 and 3)

We dealt with the teacher-parent educator relationship first. To test hypothesis three, teachers were assigned to two groups,

high morale or low morale, by a median split of the pre-measures on the Purdue Teacher Opinionnaire. Parent educator's success and self-concept factor change scores were calculated and one-way analyses of variance were run on the success score and the change scores on the Social Reaction Inventory and three factors of the How I See Myself Scale (Interpersonal Adequacy, Social-Male, and Competence). Five such analyses of variance were run to test hypothesis three.

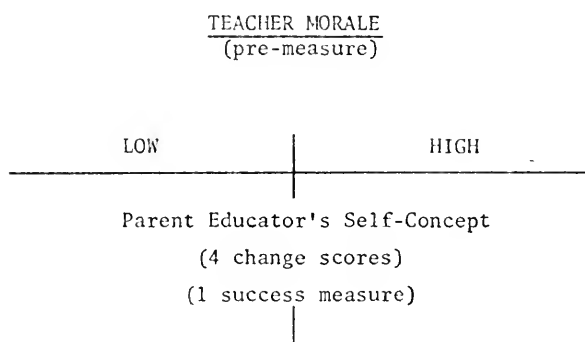


Figure 2. Design of the One-Way Analysis of Variance of Parent Educator's Success and Self-Concept Factor Change Scores.

To test hypothesis four, which deals with the parent educator-mother relationships, parent educators were assigned to a high or low factor score group on the basis of a median split of the pre-measures of their self-concept factor scores. A different high-low split was done for each of the three factors of the How I See Myself Scale (Interpersonal Adequacy, Social-Male, and Competence) and the Social Reaction Inventory. (See Figure 3).

Mother's self-concept factor change scores were calculated and one-way analyses of variance were run on the mother's change score of the Social Reaction Inventory and three factors of the How I See Myself Scale (Interpersonal Adequacy, Social-Male, and Competence) for each of the four parent educator self-concept variables. A total of sixteen analyses were run to test hypothesis four.

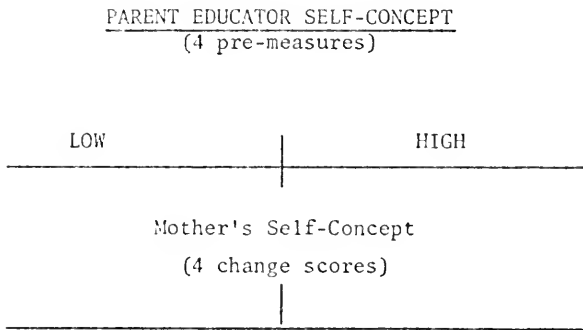


Figure 3. Design of the One-Way Analysis of Variance of Mother's Self-Concept Factor Change Scores.

Four factors (child's sex and socio-economic status and pre-measures of the teacher's morale and parent educator's self-concept have been hypothesized to be related to change in the child's self-concept measures (hypotheses five through nine). A four-way factorial design was employed to evaluate the main and interaction effects of the variables relating to self-concept change scores (See Figure 4). Winer (1962) suggests the use of multi-factor design where the primary objective is to compare the effect of combinations of treatments acting simultaneously on each of the elements of an experiment.

Teachers were placed into high or low categories by a median split of their morale scores. For each of the four parent educator self-concept variables, parent educators were classified as high or low on the basis of a median split of the pre-measures of their factor scores.

Having been established that mother's pre-measures of self-concept are related to changes in the child's self-concept over the course of the school year (Tocco, 1970), mother's self-concept measures were used as covariates to adjust the measures of the child's self-concept change scores. This was done as a statistical control to increase the precision of the experiment. Winer (1962) states, "Statistical control is achieved by measuring one or more concomitant variates in addition to the variate of primary interest (p. 578)."

Analyses of covariance were then run on each of the child's five self-concept factor change scores for each of the four parent educator self-concept variables. Twenty such analyses of covariance were run to test hypotheses five through nine.

| <u>TEACHER MORALE</u> (pre-measure) | | | | | |
|---|--------|--|------|-----|------|
| LOW | | | HIGH | | |
| <u>PARENT EDUCATOR SELF-CONCEPT</u> (4 pre-measures) | | | | | |
| Sex | S.E.S. | Low | High | Low | High |
| MALE | Low | | | | |
| | High | Child's Self-Concept (5 change scores) Adjusted for 5 pre-measures of Mother's Self-Concept | | | |
| FEMALE | Low | | | | |
| | High | | | | |

Figure 4. Four-Way Factorial Design for the Analysis of Covariance of the Child's Self-Concept Change Scores.

CHAPTER IV

RESULTS

Hypothesis one states that the degree of the relationship between the child's pre-treatment self-concept measures and the mother's pre-treatment self-concept measures is a function of the child's sex. The intercorrelation matrices (Tables 4 and 5) indicate that there is virtually no correlation between any of the mother measures and any of the child measures. Only one significant correlation (.05 level) emerged out of a possible 25. (See Table 5). This correlation may be best interpreted as due to chance.

Hypothesis two states that the relationship between the child's self-concept measures and the mother's self-concept measures is a function of the child's socio-economic status. Tables 6 and 7 are intercorrelation matrices of mother and child self-concept measures as a function of socio-economic status. There is one significant correlation between the mother and child measures (Table 7).

Hypothesis three states that change in the parent educator's self-concept measures and success over the school year is related to the teacher's morale measured at the beginning of the school year. The "F" ratios on all four tests to determine the relationships between change of the parent educator's self-concept and

TABLE 2.

Means and Standard Deviations of Child's Pre- and Post-Test
Self-Concept Scores by Child's Sex and Socio-Economic Status.

| | | Child's Sex | | | | | | | |
|------------------|------|-----------------------|-------|----------------|-------|---------------|------|----------------|-------|
| | | Male | | | | Female | | | |
| | | Socio-Economic Status | | | | | | | |
| | | Low (N=23) | | High (N=27) | | Low (N=20) | | High (N=29) | |
| | | \bar{X} | S.D. | \bar{X} | S.D. | \bar{X} | S.D. | \bar{X} | S.D. |
| General Adequacy | Pre | 61.91 | 11.09 | 62.96 | 11.15 | 63.40 | 6.98 | 63.10 | 12.03 |
| | Post | 62.70 | 10.02 | 62.56 | 10.45 | 64.00 | 7.05 | 67.21 | 5.90 |
| Peer | Pre | 48.83 | 10.05 | 52.56 | 9.23 | 53.45 | 5.64 | 52.03 | 10.27 |
| | Post | 51.04 | 7.85 | 52.26 | 7.60 | 54.00 | 5.66 | 56.66 | 4.71 |
| Teacher-School | Pre | 38.74 | 7.71 | 39.48 | 6.97 | 40.70 | 5.67 | 40.10 | 7.77 |
| | Post | 38.61 | 7.18 | 39.74 | 7.84 | 42.65 | 3.77 | 42.34 | 4.84 |
| Academic | Pre | 59.91 | 11.43 | 60.26 | 11.76 | 59.75 | 8.69 | 60.52 | 11.99 |
| | Post | 61.04 | 10.79 | 59.93 | 11.11 | 60.65 | 8.25 | 63.38 | 8.07 |
| Physical | Pre | 43.91 | 9.11 | 46.63 | 8.44 | 48.70 | 5.71 | 47.34 | 9.07 |
| | Post | 46.78 | 5.42 | 47.19 | 6.30 | 48.00 | 5.00 | 51.10 | 4.26 |

TABLE 3.

Means and Standard Deviations of Mother's Pre- and Post-Test Self-Concept Scores by Child's Sex and Socio-Economic Status.

| | | Child's Sex | | | | | | | |
|------------------------|------|-----------------------|------|----------------|------|---------------|------|----------------|------|
| | | Male | | | | Female | | | |
| | | Socio-Economic Status | | | | | | | |
| | | Low (N=23) | | High (N=27) | | Low (N=20) | | High (N=29) | |
| | | \bar{X} | S.D. | \bar{X} | S.D. | \bar{X} | S.D. | \bar{X} | S.D. |
| Interpersonal Adequacy | Pre | 51.17 | 6.31 | 53.41 | 7.31 | 50.20 | 9.39 | 54.14 | 7.07 |
| | Post | 50.00 | 5.49 | 50.44 | 8.43 | 50.60 | 8.34 | 51.28 | 6.13 |
| Social-Male | Pre | 34.04 | 5.02 | 35.67 | 6.40 | 33.80 | 5.83 | 36.76 | 4.73 |
| | Post | 34.17 | 5.60 | 34.19 | 5.38 | 33.65 | 6.12 | 34.41 | 5.33 |
| Physical | Pre | 18.22 | 2.56 | 19.81 | 3.90 | 18.20 | 4.56 | 20.21 | 4.03 |
| | Post | 18.30 | 4.22 | 19.67 | 2.85 | 18.30 | 5.35 | 19.97 | 3.82 |
| Competence | Pre | 16.74 | 3.19 | 18.22 | 4.95 | 15.90 | 3.85 | 17.79 | 3.64 |
| | Post | 16.61 | 2.46 | 18.07 | 3.37 | 16.80 | 3.41 | 17.72 | 3.72 |
| S. R. I. | Pre | 8.17 | 4.33 | 6.96 | 2.62 | 7.40 | 5.07 | 6.90 | 3.51 |
| | Post | 8.00 | 4.03 | 7.22 | 3.22 | 7.75 | 4.35 | 5.69 | 3.87 |

TABLE 4.
Intercorrelation Matrix of Male Children's and Mothers' Pretest Self-Concept Measures.
(N = 50)

[illegible]

TABLE 5.

Intercorrelation Matrix of Female Children's and Mothers' Pretest Self-Concept Measures.
(N =49)

| Child Variables | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------------------|------|------|------|------|-------|-------|------|-------|-------|
| 1 General Adequacy | 0.84 | 0.74 | 0.91 | 0.77 | 0.01 | 0.07 | 0.16 | 0.37* | -0.21 |
| 2 Peer | | 0.84 | 0.82 | 0.89 | -0.11 | 0.04 | 0.06 | 0.27 | -0.17 |
| 3 Teacher-School | | | 0.80 | 0.72 | -0.14 | -0.08 | 0.15 | 0.17 | -0.17 |
| 4 Academic | | | | 0.75 | -0.06 | -0.02 | 0.19 | 0.23 | -0.11 |
| 5 Physical | | | | | -0.06 | -0.00 | 0.02 | 0.29 | -0.20 |
| <u>Mother Variables</u> | | | | | | | | | |
| 6 Interpersonal Adequacy | | | | | | 0.47 | 0.46 | 0.29 | -0.22 |
| 7 Social-Male | | | | | | | 0.41 | 0.52 | -0.27 |
| 8 Personal Appearance | | | | | | | | 0.19 | -0.21 |
| 9 Competence | | | | | | | | | -0.51 |
| 10 Social Reaction Inventory | | | | | | | | | |

*Significant at .05 Level between Mother and Child Measures.

TABLE 7..
 Interrelation Matrix of High Socio-Economic Status
 Children's and Mothers' Pretest Self-Concept Measures.
 (N =46)

| Child Variables | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------------------|------|------|------|------|-------|-------|-------|------|-------|
| 1 General Adequacy | 0.79 | 0.84 | 0.92 | 0.77 | -0.10 | -0.08 | 0.21 | 0.13 | -0.20 |
| 2 Peer | | 0.85 | 0.83 | 0.92 | -0.11 | -0.01 | 0.20 | 0.10 | -0.12 |
| 3 Teacher-School | | | 0.86 | 0.78 | -0.06 | -0.09 | 0.30* | 0.02 | -0.12 |
| 4 Academic | | | | 0.83 | -0.11 | -0.11 | 0.16 | 0.12 | -0.12 |
| 5 Physical | | | | | -0.05 | -0.03 | 0.16 | 0.13 | -0.15 |
| <u>Mother Variables</u> | | | | | | | | | |
| 6 Interpersonal Adequacy | | | | | | 0.44 | 0.46 | 0.33 | -0.36 |
| 7 Social-Male | | | | | | | 0.36 | 0.62 | -0.44 |
| 8 Personal Appearance | | | | | | | | 0.37 | -0.27 |
| 9 Competence | | | | | | | | | -0.44 |
| 10 Social Reaction Inventory | | | | | | | | | |

*Significant at .05 Level between Mother and Child Measures .

teacher's pre-measured morale were small and not significant (See Appendix II, Tables 29 and 31-33). The "F" to test parent educator's success as a function of teacher's morale was extremely small (Appendix II, Table 30). Table 8 indicates that regardless of teacher's morale, the parent educators in this study tended to gain on the average of three of the four measures of self-concept used. They gained in interpersonal adequacy, competence and internal control of the environment (Social Reaction Inventory). Hypothesis three is not confirmed.

Hypothesis four states that changes in mother's self-concept measures over the school year are related to parent educator's self-concept measures at the beginning of the school year. Tables 9 through 12 show the mean change and standard deviation of the mothers' self-concept variables as a function of each of four parent educator variables. Hypothesis four is tested for four parent educator variables and four mother variables. The results are displayed in Appendix II, Tables 34-49. In all cases, error represented the largest source of variance. No significant differences were found for any of the analyses. Mothers in both groups, however, tended to decrease in their interpersonal adequacy and social-male factor scores. Findings for the other mother variables are mixed (See Tables 9-12). High socio-economic status mothers scored significantly higher than low socio-economic status mothers on all self-concept variables on the pretest (See Table 3). There were no significant differences in self-concept measures related to socio-economic status for posttest or change scores. Hypothesis four is not accepted.

TABLE 8. .

Means and Standard Deviations of Parent Educator's Self-Concept
Pretest and Change Scores and Success as a Function of the
Pre-Measures of Teacher's Morale.

| <u>Variable</u> | | Teacher Morale | | | |
|------------------------|---------|-----------------------------|-------------|-----------------------------|-------------|
| | | <u>Low (N=12)</u> | | <u>High (N=12)</u> | |
| | | <u>\bar{X}</u> | <u>S.D.</u> | <u>\bar{X}</u> | <u>S.D.</u> |
| Interpersonal Adequacy | Pretest | 56.13 | 6.94 | 54.30 | 4.68 |
| | Change | 0.08 | 7.69 | 1.08 | 5.87 |
| Social-Male | Pretest | 38.08 | 4.40 | 37.92 | 4.44 |
| | Change | 0.67 | 7.02 | -2.16 | 5.34 |
| Competence | Pretest | 17.76 | 2.30 | 16.53 | 3.10 |
| | Change | 0.75 | 3.36 | 1.58 | 2.25 |
| S. R. I. | Pretest | 5.15 | 4.28 | 4.58 | 3.42 |
| | Change | -1.50 | 6.36 | -0.17 | 3.39 |
| Success | | 49.91 | 7.31 | 50.08 | 6.36 |

TABLE 9..

Means and Standard Deviations of Mother's Self-Concept Pretest and Change Scores as a Function of the Pre-Measures of the Parent Educator's Interpersonal Adequacy Factor Score.

| Variable | | P.E. Interpersonal Adequacy | | | |
|------------------------|---------|-----------------------------|-------------|-----------------------------|-------------|
| | | <u>Low (N=53)</u> | | <u>High (N=46)</u> | |
| | | <u>\bar{X}</u> | <u>S.D.</u> | <u>\bar{X}</u> | <u>S.D.</u> |
| Interpersonal Adequacy | Pretest | 52.92 | 7.39 | 51.91 | 7.78 |
| | Change | -1.94 | 6.37 | -1.72 | 7.43 |
| Social-Male | Pretest | 35.70 | 5.53 | 34.70 | 5.61 |
| | Change | -1.11 | 5.26 | -1.07 | 5.76 |
| Competence | Pretest | 17.72 | 3.96 | 16.78 | 4.09 |
| | Change | -0.21 | 3.05 | 0.43 | 3.01 |
| S. R. I. | Pretest | 6.33 | 3.12 | 8.43 | 4.32 |
| | Change | -0.57 | 2.74 | 0.11 | 2.51 |

TABLE 10.

Means and Standard Deviations of Mother's Self-Concept Pretest and Change Scores as a Function of the Pre-Measures of the Parent Educator's Social-Male Factor Score.

| | | P.E. Social-Male | | | |
|------------------------|---------|-----------------------------|-------------|-----------------------------|-------------|
| <u>Variable</u> | | <u>Low (N=58)</u> | | <u>High (N=41)</u> | |
| | | <u>\bar{X}</u> | <u>S.D.</u> | <u>\bar{X}</u> | <u>S.D.</u> |
| Interpersonal Adequacy | Pretest | 52.10 | 6.94 | 52.95 | 8.40 |
| | Change | -1.63 | 7.40 | -2.12 | 6.09 |
| Social-Male | Pretest | 35.53 | 5.16 | 34.81 | 6.14 |
| | Change | -1.04 | 6.07 | -1.17 | 4.62 |
| Competence | Pretest | 17.36 | 4.05 | 17.17 | 4.06 |
| | Change | 0.14 | 3.28 | 0.02 | 2.70 |
| S. R. I. | Pretest | 7.09 | 3.86 | 7.63 | 3.86 |
| | Change | -0.49 | 2.91 | 0.07 | 2.23 |

TABLE 11.

Means and Standard Deviations of Mother's Self-Concept Pretest and Change Scores as a Function of the Pre-Measures of the Parent Educator's Competence Factor Score.

| <u>Variable</u> | | P.E. Competence | | | |
|------------------------|---------|-----------------------------|-------------|-----------------------------|-------------|
| | | <u>Low (N=52)</u> | | <u>High (N=47)</u> | |
| | | <u>\bar{X}</u> | <u>S.D.</u> | <u>\bar{X}</u> | <u>S.D.</u> |
| Interpersonal Adequacy | Pretest | 53.33 | 8.58 | 51.49 | 6.17 |
| | Change | -2.04 | 7.78 | -1.62 | 5.71 |
| Social-Male | Pretest | 36.25 | 5.88 | 34.11 | 5.02 |
| | Change | -1.61 | 5.94 | -0.52 | 4.90 |
| Competence | Pretest | 17.63 | 4.00 | 16.89 | 4.07 |
| | Change | -0.13 | 2.96 | 0.34 | 3.11 |
| S. R. I. | Pretest | 6.83 | 3.82 | 7.85 | 3.86 |
| | Change | -0.40 | 2.98 | -0.09 | 2.24 |

TABLE 12.

Means and Standard Deviations of Mother's Self-Concept Pretest and Change Scores as a Function of the Pre-Measures of the Parent Educator's S. R. I. Factor Score.

| <u>Variable</u> | | P.E. S. R. I. | | | |
|------------------------|---------|-----------------------------|-------------|-----------------------------|-------------|
| | | <u>Low (N=53)</u> | | <u>High (N=46)</u> | |
| | | <u>\bar{X}</u> | <u>S.D.</u> | <u>\bar{X}</u> | <u>S.D.</u> |
| Interpersonal Adequacy | Pretest | 51.77 | 7.55 | 53.24 | 7.55 |
| | Change | -1.37 | 7.28 | -2.36 | 6.36 |
| Social-Male | Pretest | 34.55 | 5.68 | 36.02 | 5.39 |
| | Change | -0.58 | 5.90 | -1.66 | 4.95 |
| Competence | Pretest | 16.70 | 4.24 | 17.96 | 3.71 |
| | Change | 0.58 | 3.07 | -0.45 | 2.93 |
| S. R. I. | Pretest | 7.68 | 4.16 | 6.89 | 3.46 |
| | Change | 0.04 | 2.82 | -0.57 | 2.44 |

Hypothesis five states that change in the child's self-concept measures over the school year is related to his sex. The analyses of covariance are presented in Tables 21-28 and Appendix II, Tables 62-73. Cell means and standard deviations for those analyses are given in Tables 13-20 and Appendix II, Tables 50-61. These tables will be referred to for hypotheses five through nine. There are no significant differences in the mean change of the child's self-concept due to his sex. Table 3 indicates that both males and females increased on all self-concept measures for pre- to posttesting. Females tended to score higher than males on all measures. It appears, however, that sex of the child alone is not a significant discriminator of how a child's self-concept will be influenced outside of his relationship with his mother. It must be noted that the child's scores are adjusted for mother's self-concept pretest scores. Hypothesis five is not accepted.

Hypothesis six states that change in the child's self-concept measures over the school year is related to his socio-economic status. The analyses to test this hypothesis are presented in Tables 13-20 and Appendix II. There is no indication of any differences in the self-concept changes over the school year with respect to the socio-economic status of the child. Table 6 indicates that both high and low socio-economic status groups show small increases on all five self-concept measures. The high socio-economic group tended to have higher scores on all self-concept measures than the low group, but the differences were not significant. Hypothesis six is not accepted.

Hypothesis seven states that change in the child's self-concept over the school year is related to the parent educator's self-

concept measures at the beginning of the school year. This hypothesis was tested for four parent educator self-concept variable high-low splits: three on factors of the How I See Myself Scale (Interpersonal Adequacy, Social-Male and Competence) and one on the Social Reaction Inventory. The analyses are presented in Tables 38 through 53 and Appendix II. They indicate that none of the parent educator variables alone discriminates change in any of the child's self-concept variables. Hypothesis seven is not accepted.

Hypothesis eight states that change in the child's self-concept measures over the school year is related to the teacher's morale measured at the beginning of the school year. Another look at Tables 13-20 and Appendix II shows that there are no differences in the child's gain scores related to teacher's morale. Hypothesis eight is not accepted.

Hypothesis nine states that the child's change in self-concept measures over the school year is related to an inter-action of his sex and socio-economic status and the pre-measures of parent educator's self-concept and teacher's morale. Ten interactions of some or all of these factors are significant (See Tables 13-20). Graphs of the significant interactions are presented in Figures 5 through 14.

When the parent educators were divided by their self-concept of competence factor scores, three significant four-way interactions of the child's sex and socio-economic status, teacher's morale and parent educator's self-concept of competence emerged with the child's change on his general adequacy (Figure 5), peer (Figure 6) and physical factor scores (Figure 7). A look at

TABLE 13.

Means and Standard Deviations of Child's General Adequacy Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|--------|---------------------------|--------------------------|-------------------------|--------------------------|
| | | Low | | High | |
| | | P.E. Social-Male Low | P.E. Social-Male High | P.E. Social-Male Low | P.E. Social-Male High |
| Male | Low | Pre \bar{X} 63.83 | 57.25 | 66.50 | 56.00 |
| | | Pre S.D. 5.78 | 9.54 | 10.11 | 16.58 |
| | | \bar{X} Change -4.50 | 6.50 | -4.25 | 10.60 |
| | | S.D. 6.95 | 13.87 | 5.82 | 19.23 |
| | | n 6 | 4 | 8 | 5 |
| | High | Pre \bar{X} 60.70 | 52.40 | 71.17 | 58.00 |
| | | Pre S.D. 8.88 | 9.55 | 2.99 | 16.77 |
| | | \bar{X} Change -4.30 | -1.80 | -2.33 | 9.17 |
| | | S.D. 8.35 | 3.96 | 5.32 | 18.45 |
| | | n 10 | 5 | 6 | 6 |
| Female | Low | Pre \bar{X} 65.71 | 63.00 | 63.60 | 63.00 |
| | | Pre S.D. 7.20 | 14.93 | 3.43 | 5.43 |
| | | \bar{X} Change -0.86 | 5.53 | 3.60 | -3.20 |
| | | S.D. 6.47 | 14.74 | 5.22 | 8.76 |
| | | n 7 | 3 | 5 | 5 |
| | High | Pre \bar{X} 63.54 | 60.83 | 53.00 | 68.57 |
| | | Pre S.D. 8.90 | 4.40 | 12.97 | 6.85 |
| | | \bar{X} Change 2.69 | 8.17 | 15.33 | -1.57 |
| | | S.D. 9.57 | 6.77 | 25.28 | 9.80 |
| | | n 13 | 6 | 3 | 7 |

TABLE 14.

Means and Standard Deviations of Child's Peer Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|--------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | Low | | High | |
| | | P.E. Social-Male Low | P.E. Social-Male High | P.E. Social-Male Low | P.E. Social-Male High |
| Male | Low | Pre \bar{X} | 45.50 | 52.50 | 45.40 |
| | | Pre S.D. | 9.74 | 9.70 | 12.21 |
| | | \bar{X} Change | 2.33 | -1.63 | 7.80 |
| | | S.D. | 8.17 | 5.96 | 20.15 |
| | | n | 6 | 8 | 5 |
| | High | Pre \bar{X} | 50.50 | 58.33 | 52.00 |
| | | Pre S.D. | 8.20 | 3.08 | 13.91 |
| | | \bar{X} Change | -2.20 | -2.33 | 4.67 |
| | | S.D. | 8.40 | 6.50 | 14.80 |
| | | n | 10 | 6 | 6 |
| Female | Low | Pre \bar{X} | 54.71 | 56.20 | 52.20 |
| | | Pre S.D. | 4.27 | 2.59 | 2.95 |
| | | \bar{X} Change | 0.57 | 0.20 | -3.40 |
| | | S.D. | 5.21 | 5.63 | 5.77 |
| | | n | 7 | 5 | 5 |
| | High | Pre \bar{X} | 48.00 | 44.33 | 56.71 |
| | | Pre S.D. | 12.00 | 17.13 | 5.35 |
| | | \bar{X} Change | 7.67 | 15.00 | -0.71 |
| | | S.D. | 15.89 | 18.00 | 3.99 |
| | | n | 5 | 3 | 7 |

TABLE 15.

Means and Standard Deviations of Child's Teacher-School Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|--------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | Low | | High | |
| | | P.E. Social-Male Low | P.E. Social-Male High | P.E. Social-Male Low | P.E. Social-Male High |
| Male | Low | Pre \bar{X} | 38.00 | 40.88 | 36.00 |
| | | Pre S.D. | 7.87 | 7.08 | 7.97 |
| | | \bar{X} Change | 0.50 | -1.75 | 5.60 |
| | | S.D. | 9.66 | 3.45 | 14.50 |
| | n | 6 | 4 | 8 | 5 |
| | High | Pre \bar{X} | 38.20 | 44.17 | 38.17 |
| | | Pre S.D. | 5.78 | 3.66 | 11.21 |
| | | \bar{X} Change | -3.30 | 1.00 | 5.83 |
| | | S.D. | 6.85 | 4.56 | 11.32 |
| | n | 10 | 5 | 6 | 6 |
| Female | Low | Pre \bar{X} | 42.00 | 42.80 | 40.40 |
| | | Pre S.D. | 4.08 | 5.21 | 3.78 |
| | | \bar{X} Change | 0.57 | 1.60 | 1.20 |
| | | S.D. | 2.99 | 6.35 | 5.67 |
| | n | 7 | 3 | 5 | 5 |
| | High | Pre \bar{X} | 40.00 | 33.00 | 44.57 |
| | | Pre S.D. | 6.20 | 9.98 | 3.15 |
| | | \bar{X} Change | 1.46 | 13.67 | -3.00 |
| | | S.D. | 7.87 | 20.23 | 3.87 |
| | n | 13 | 6 | 3 | 7 |

TABLE 16.

Means and Standard Deviations of Child's Academic Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Low | | High | |
|--------|--------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | P.E. Social-Male Low | P.E. Social-Male High | P.E. Social-Male Low | P.E. Social-Male High |
| Male | Low | Pre \bar{X} | 54.50 | 66.00 | 56.00 |
| | | Pre S.D. | 9.74 | 9.97 | 11.18 |
| | | \bar{X} Change | 7.25 | -5.63 | 8.40 |
| | | S.D. | 14.77 | 6.63 | 17.90 |
| | n | 6 | 4 | 8 | 5 |
| | High | Pre \bar{X} | 57.80 | 69.83 | 58.33 |
| Female | | Pre S.D. | 13.10 | 5.12 | 15.54 |
| | | \bar{X} Change | 0.00 | -3.00 | 7.33 |
| | | S.D. | 5.34 | 8.63 | 18.86 |
| | n | 10 | 5 | 6 | 6 |
| | Low | Pre \bar{X} | 58.00 | 59.40 | 60.80 |
| | | Pre S.D. | 13.45 | 7.20 | 3.57 |
| | | \bar{X} Change | 6.00 | 6.20 | -5.20 |
| | | S.D. | 15.62 | 10.47 | 7.53 |
| | n | 7 | 3 | 5 | 5 |
| | High | Pre \bar{X} | 60.62 | 51.00 | 67.14 |
| | | Pre S.D. | 8.43 | 11.57 | 5.02 |
| | | \bar{X} Change | 0.77 | 18.67 | -2.86 |
| | | S.D. | 9.39 | 21.56 | 10.22 |
| | n | 13 | 6 | 3 | 7 |

TABLE 17.

Means and Standard Deviations of Child's Physical Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|--------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | Low | | High | |
| | | P.E. Social-Male Low | P.E. Social-Male High | P.E. Social-Male Low | P.E. Social-Male High |
| Male | Low | Pre \bar{X} | 40.00 | 47.50 | 40.80 |
| | | Pre S.D. | 9.06 | 8.90 | 13.14 |
| | | \bar{X} Change | 4.25 | -0.58 | 6.60 |
| | | S.D. | 12.84 | 3.81 | 16.99 |
| | | n | 4 | 8 | 5 |
| | High | Pre \bar{X} | 46.40 | 51.50 | 46.17 |
| | | Pre S.D. | 7.64 | 3.30 | 13.86 |
| | | \bar{X} Change | -0.40 | -2.50 | 4.67 |
| | | S.D. | 6.47 | 8.11 | 14.91 |
| | | n | 5 | 6 | 6 |
| Female | Low | Pre \bar{X} | 44.00 | 51.20 | 46.20 |
| | | Pre S.D. | 11.14 | 2.59 | 4.66 |
| | | \bar{X} Change | 7.55 | -2.40 | -1.60 |
| | | S.D. | 13.58 | 4.53 | 7.00 |
| | | n | 3 | 5 | 5 |
| | High | Pre \bar{X} | 43.50 | 39.33 | 51.71 |
| | | Pre S.D. | 5.13 | 14.54 | 5.02 |
| | | \bar{X} Change | 6.55 | 14.00 | -1.00 |
| | | S.D. | 8.80 | 14.33 | 5.07 |
| | | n | 6 | 3 | 7 |

TABLE 18.

Means and Standard Deviations of Child's General Adequacy Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Competence Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|------------------|----------------|-----------------|----------|-----------------|
| | | Low | | High | |
| | | P.E. Low | Competence High | P.E. Low | Competence High |
| Male | Low | | | | |
| | Pre \bar{X} | 57.00 | 65.00 | 65.60 | 52.00 |
| | Pre S.D. | 12.29 | 5.26 | 9.35 | 11.70 |
| | \bar{X} Change | 10.67 | -4.71 | -1.80 | 12.33 |
| | S.D. | 13.58 | 6.37 | 6.71 | 27.65 |
| | n | 5 | 7 | 10 | 3 |
| | High | | | | |
| | Pre \bar{X} | 58.71 | 63.50 | 61.83 | 68.33 |
| | Pre S.D. | 8.34 | 9.12 | 12.44 | 7.47 |
| | \bar{X} Change | -3.71 | -3.25 | 6.17 | 0.67 |
| | S.D. | 9.76 | 4.46 | 18.58 | 9.58 |
| | n | 7 | 8 | 6 | 6 |
| Female | Low | | | | |
| | Pre \bar{X} | 66.25 | 61.67 | 63.57 | 62.67 |
| | Pre S.D. | 8.90 | 9.69 | 4.69 | 4.04 |
| | \bar{X} Change | -5.50 | 5.33 | -0.29 | 1.33 |
| | S.D. | 3.70 | 9.42 | 7.78 | 9.02 |
| | n | 4 | 6 | 7 | 3 |
| | High | | | | |
| | Pre \bar{X} | 63.36 | 60.80 | 66.83 | 59.50 |
| | Pre S.D. | 8.58 | 4.92 | 6.24 | 14.67 |
| | \bar{X} Change | 2.79 | 9.00 | 1.67 | 6.25 |
| | S.D. | 9.01 | 7.21 | 5.82 | 23.89 |
| | n | 14 | 5 | 6 | 4 |

TABLE 19.

Means and Standard Deviations of Child's Peer Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Competence Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Low | | High | |
|--------|--------|------------------|-----------------|----------|-----------------|
| | | P.E. Low | Competence High | P.E. Low | Competence High |
| Male | Low | 44.67 | 48.86 | 51.50 | 44.00 |
| | | 11.85 | 8.84 | 9.06 | 11.46 |
| | | Pre S.D. | 1.57 | 0.00 | 8.67 |
| | | \bar{X} Change | 7.68 | 5.89 | 27.59 |
| | | S.D. | 7 | 10 | 5 |
| | High | 50.00 | 50.88 | 50.50 | 59.83 |
| | | 7.34 | 9.50 | 12.99 | 2.48 |
| | | Pre S.D. | -0.25 | 5.50 | -5.17 |
| | | \bar{X} Change | 7.20 | 14.68 | 5.49 |
| | | S.D. | 8 | 6 | 6 |
| Female | Low | 53.25 | 52.35 | 54.57 | 53.53 |
| | | 6.70 | 8.43 | 2.51 | 5.51 |
| | | Pre S.D. | 4.67 | -1.45 | -2.00 |
| | | \bar{X} Change | 11.02 | 6.02 | 6.08 |
| | | S.D. | 6 | 7 | 5 |
| | High | 51.64 | 51.20 | 57.50 | 46.25 |
| | | 8.53 | 4.32 | 5.05 | 12.62 |
| | | Pre S.D. | 4.40 | -0.85 | 11.25 |
| | | \bar{X} Change | 7.13 | 4.36 | 24.06 |
| | | S.D. | 5 | 6 | 4 |

TABLE 20.

Means and Standard Deviations of Child's Physical Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Competence Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|------------------|----------------|-----------------|----------|-----------------|
| | | Low | | High | |
| | | P.E. Low | Competence High | P.E. Low | Competence High |
| Male | Low | | | | |
| | Pre \bar{X} | 37.33 | 44.86 | 46.50 | 39.67 |
| | Pre S.D. | 9.02 | 4.67 | 8.28 | 13.15 |
| | \bar{X} Change | 7.00 | 2.14 | 0.20 | 9.33 |
| | S.D. | 14.18 | 8.37 | 4.05 | 23.09 |
| | n | 3 | 7 | 10 | 3 |
| | High | | | | |
| | Pre \bar{X} | 44.29 | 45.38 | 43.67 | 54.00 |
| | Pre S.D. | 5.53 | 8.09 | 12.47 | 1.09 |
| | \bar{X} Change | -0.14 | 0.38 | 5.83 | -3.67 |
| Female | S.D. | 9.17 | 5.85 | 15.18 | 5.85 |
| | n | 7 | 8 | 6 | 6 |
| | Low | | | | |
| | Pre \bar{X} | 49.75 | 48.00 | 48.57 | 49.00 |
| | Pre S.D. | 6.18 | 8.03 | 4.35 | 5.57 |
| | \bar{X} Change | -2.00 | 2.33 | -1.00 | -4.33 |
| | S.D. | 2.16 | 10.42 | 6.63 | 4.72 |
| | n | 4 | 6 | 7 | 3 |
| | High | | | | |
| | Pre \bar{X} | 48.29 | 43.40 | 52.50 | 41.25 |
| | Pre S.D. | 5.57 | 5.75 | 4.68 | 10.53 |
| | \bar{X} Change | 3.21 | 5.80 | -0.17 | 9.00 |
| | S.D. | 5.83 | 9.73 | 4.49 | 22.42 |
| | n | 14 | 5 | 6 | 4 |

TABLE 21.

Analysis of Covariance of the Child's General Adequacy Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|-----------------------------------|-------------------|-------|-------------|--------|
| Teacher's Morale (I) | 119.02 | 1 | 119.02 | 0.95 |
| P. E.'s Social-Male Factor (J) | 196.64 | 1 | 196.64 | 1.56 |
| Child's Sex (K) | 77.43 | 1 | 77.43 | 0.62 |
| Child's Socio-Economic Status (L) | 101.94 | 1 | 101.94 | 0.81 |
| IJ | 61.99 | 1 | 61.99 | 0.49 |
| IK | 156.86 | 1 | 156.86 | 1.25 |
| IL | 40.68 | 1 | 40.68 | 0.32 |
| JK | 893.40 | 1 | 893.40 | 7.11** |
| JL | 81.30 | 1 | 81.30 | 0.65 |
| KL | 191.23 | 1 | 191.23 | 1.52 |
| IJK | 844.59 | 1 | 844.59 | 6.72* |
| IJL | 5.67 | 1 | 5.67 | 0.05 |
| IKL | 18.21 | 1 | 18.21 | 0.14 |
| JKL | 0.55 | 1 | 0.55 | 0.00 |
| IJKL | 30.11 | 1 | 30.11 | 0.24 |
| Error | 9804.41 | 78 | 125.70 | |

*Significant at .05

**Significant at .01

TABLE 22.

Analysis of Variance of the Child's Peer Factor Change Score as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| <u>Source</u> | <u>Sum of Squares</u> | <u>D. F.</u> | <u>Mean Square</u> | <u>F</u> |
|-----------------------------------|-----------------------|--------------|--------------------|----------|
| Teacher's Morale (I) | 0.03 | 1 | 0.03 | 0.00 |
| P. E.'s Social-Male Factor (J) | 3.22 | 1 | 3.22 | 0.03 |
| Child's Sex (K) | 116.23 | 1 | 116.23 | 1.07 |
| Child's Socio-Economic Status (L) | 56.27 | 1 | 56.27 | 0.52 |
| IJ | 32.62 | 1 | 32.62 | 0.30 |
| IK | 76.79 | 1 | 76.79 | 0.71 |
| IL | 123.45 | 1 | 123.45 | 1.14 |
| JK | 266.10 | 1 | 266.10 | 2.45 |
| JL | 120.51 | 1 | 120.51 | 1.11 |
| KL | 288.02 | 1 | 288.02 | 2.66 |
| IJK | 609.47 | 1 | 609.47 | 5.62* |
| IJL | 18.36 | 1 | 18.36 | 0.17 |
| IKL | 20.31 | 1 | 20.31 | 0.19 |
| JKL | 187.54 | 1 | 187.54 | 1.73 |
| IJKL | 2.13 | 1 | 2.13 | 0.02 |
| Error | 8459.83 | 78 | 108.46 | |

*Significant at .05

TABLE 23.

Analysis of Covariance of the Child's Teacher-School Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|-----------------------------------|-------------------|-------|-------------|-------|
| Teacher's Morale (I) | 95.33 | 1 | 95.33 | 1.41 |
| P. E.'s Social-Male Factor (J) | 36.54 | 1 | 36.54 | 0.54 |
| Child's Sex (K) | 167.38 | 1 | 167.38 | 2.48 |
| Child's Socio-Economic Status (L) | 27.85 | 1 | 27.85 | 0.41 |
| IJ | 132.99 | 1 | 132.99 | 1.97 |
| IK | 83.95 | 1 | 83.95 | 1.24 |
| IL | 22.44 | 1 | 22.44 | 0.33 |
| JK | 266.86 | 1 | 266.86 | 3.95 |
| JL | 145.88 | 1 | 145.88 | 2.16 |
| KL | 0.88 | 1 | 0.88 | 0.01 |
| IJK | 333.54 | 1 | 333.54 | 4.93* |
| IJL | 48.98 | 1 | 48.98 | 0.72 |
| IKL | 4.78 | 1 | 4.78 | 0.07 |
| JKL | 113.55 | 1 | 113.55 | 1.68 |
| IJKL | 30.87 | 1 | 30.87 | 0.46 |
| Error | 5273.72 | 78 | 67.61 | |

*Significant at .05

TABLE 24.

Analysis of Covariance of the Child's Academic Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| <u>Source</u> | <u>Sum of Squares</u> | <u>D. F.</u> | <u>Mean Square</u> | <u>F</u> |
|-----------------------------------|---------------------------|--------------|--------------------|----------|
| Teacher's Morale (I) | 32.89 | 1 | 32.89 | 0.23 |
| P. E.'s Social-Male Factor (J) | 43.28 | 1 | 43.28 | 0.31 |
| Child's Sex (K) | 63.52 | 1 | 63.52 | 0.45 |
| Child's Socio-Economic Status (L) | 28.13 | 1 | 28.13 | 0.20 |
| IJ | 215.67 | 1 | 215.67 | 1.53 |
| IK | 0.08 | 1 | 0.08 | 0.00 |
| IL | 154.32 | 1 | 154.32 | 1.09 |
| JK | 1013.92 | 1 | 1013.92 | 7.19** |
| JL | 53.84 | 1 | 53.84 | 0.38 |
| KL | 183.26 | 1 | 183.26 | 1.30 |
| IJK | 1209.98 | 1 | 1209.98 | 8.58** |
| IJL | 35.21 | 1 | 35.21 | 0.25 |
| IKL | 3.56 | 1 | 3.56 | 0.03 |
| JKL | 5.85 | 1 | 5.85 | 0.04 |
| IJKL | 9.84 | 1 | 9.84 | 0.07 |
| Error | 10998.97 | 78 | 141.01 | |

**Significant at .01

TABLE 25.

Analysis of Covariance of the Child's Physical Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Social-Male Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|-----------------------------------|-------------------|-------|-------------|-------|
| Teacher's Morale (I) | 1.71 | 1 | 1.71 | 0.02 |
| P. E.'s Social-Male Factor (J) | 27.44 | 1 | 27.44 | 0.31 |
| Child's Sex (K) | 9.27 | 1 | 9.27 | 0.10 |
| Child's Socio-Economic Status (L) | 39.53 | 1 | 39.53 | 0.44 |
| IJ | 35.20 | 1 | 35.20 | 0.39 |
| IK | 12.89 | 1 | 12.89 | 0.14 |
| IL | 72.71 | 1 | 72.71 | 0.81 |
| JK | 86.63 | 1 | 86.63 | 0.97 |
| JL | 131.82 | 1 | 131.82 | 1.48 |
| KL | 323.93 | 1 | 323.93 | 3.63 |
| IJK | 604.23 | 1 | 604.23 | 6.77* |
| IJL | 22.39 | 1 | 22.39 | 0.25 |
| IKL | 12.54 | 1 | 12.54 | 0.14 |
| JKL | 148.42 | 1 | 148.42 | 1.66 |
| IJKL | 36.49 | 1 | 36.49 | 0.41 |
| Error | 6962.80 | 78 | 89.27 | |

*Significant at .05

TABLE 26.

Analysis of Covariance of the Child's General Adequacy Factor Change Score as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Competence Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|-----------------------------------|-------------------|-------|-------------|-------|
| Teacher's Morale (I) | 114.72 | 1 | 114.72 | 0.84 |
| P. E.'s Competence Factor (J) | 124.15 | 1 | 124.15 | 0.91 |
| Child's Sex (K) | 0.38 | 1 | 0.38 | 0.00 |
| Child's Socio-Economic Status (L) | 4.57 | 1 | 4.57 | 0.03 |
| IJ | 80.35 | 1 | 80.35 | 0.59 |
| IK | 145.04 | 1 | 145.04 | 1.06 |
| IL | 1.09 | 1 | 1.09 | 0.01 |
| JK | 120.56 | 1 | 120.56 | 0.88 |
| JL | 11.57 | 1 | 11.57 | 0.08 |
| KL | 385.21 | 1 | 385.21 | 2.82 |
| IJK | 352.15 | 1 | 352.15 | 2.58 |
| IJL | 195.72 | 1 | 195.72 | 1.43 |
| IKL | 94.05 | 1 | 94.05 | 0.69 |
| JKL | 6.40 | 1 | 6.40 | 0.05 |
| IJKL | 621.24 | 1 | 621.24 | 4.55* |
| Error | 10641.72 | 78 | 136.43 | |

*Significant at .05

TABLE 27.

Analysis of Covariance of the Child's Peer Factor Change Score as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Competence Factor Score and Child's Sex and Socio-Economic Status.

| <u>Source</u> | <u>Sum of Squares</u> | <u>D. F.</u> | <u>Mean Square</u> | <u>F</u> |
|-----------------------------------|-----------------------|--------------|--------------------|----------|
| Teacher's Morale (I) | 2.54 | 1 | 2.54 | 0.02 |
| P.E.'s Competence Factor (J) | 82.68 | 1 | 82.68 | 0.74 |
| Child's Sex (K) | 5.97 | 1 | 5.97 | 0.05 |
| Child's Socio-Economic Status (L) | 3.85 | 1 | 3.85 | 0.03 |
| IJ | 31.48 | 1 | 31.48 | 0.28 |
| IK | 78.97 | 1 | 78.97 | 0.71 |
| IL | 41.54 | 1 | 41.54 | 0.37 |
| JK | 38.82 | 1 | 38.82 | 0.35 |
| JL | 6.08 | 1 | 6.08 | 0.05 |
| KL | 401.75 | 1 | 401.75 | 3.60 |
| IJK | 8.57 | 1 | 8.57 | 0.08 |
| IJL | 0.48 | 1 | 0.48 | 0.00 |
| IKL | 3.80 | 1 | 3.80 | 0.03 |
| JKL | 149.88 | 1 | 149.88 | 1.34 |
| IJKL | 649.70 | 1 | 649.70 | 5.82* |
| Error | 8713.23 | 78 | 111.71 | |

*Significant at .05

TABLE 28.

Analysis of Covariance of the Child's Physical Factor Change Score as a Function of the Pre-Measures of the Teacher's Morale, Parent Educator's Competence Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|-----------------------------------|----------------|-------|-------------|-------|
| Teacher's Morale (I) | 0.51 | 1 | 0.51 | 0.01 |
| P. E.'s Competence Factor (J) | 45.00 | 1 | 45.00 | 0.50 |
| Child's Sex (K) | 35.99 | 1 | 35.99 | 0.40 |
| Child's Socio-Economic Status (L) | 3.71 | 1 | 3.71 | 0.04 |
| IJ | 3.46 | 1 | 3.46 | 0.04 |
| IK | 19.29 | 1 | 19.29 | 0.21 |
| IL | 12.96 | 1 | 12.96 | 0.14 |
| JK | 67.56 | 1 | 67.56 | 0.75 |
| JL | 0.14 | 1 | 0.14 | 0.00 |
| KL | 482.29 | 1 | 482.29 | 5.34* |
| IJK | 2.87 | 1 | 2.87 | 0.31 |
| IJL | 11.89 | 1 | 11.89 | 0.13 |
| IKL | 2.67 | 1 | 2.67 | 0.03 |
| JKL | 282.59 | 1 | 282.59 | 3.13 |
| IJKL | 588.63 | 1 | 588.63 | 6.52* |
| Error | 7040.98 | 78 | 90.27 | |

*Significant at .05

Figures 5, 6, and 7 indicates that the trends for these interactions are similar. Except for the condition of low socio-economic status students in a class with a high morale teacher, and the condition of high socio-economic status students in a class with a low morale teacher, girls' factor scores tend to increase more than boys' with a high self-concept of competence parent educator and boys' more than girls' with a low self-concept of competence parent educator.

For low socio-economic status students in a high teacher morale class, there seem to be no sex differences in self-concept change when the parent educator's self-concept of competence is low, but boys score significantly greater than girls when a high competence parent educator is in the room (Figures 5, 6, and 7). When teacher's morale is low and socio-economic status is high, girls increase more than boys regardless of the parent educator's self-concept of competence.

There is a significant two-way interaction of the child's sex and socio-economic status with the child's physical factor gain score (for the parent educator self-concept of competence split). Figure 8 indicates that girls gain more in the physical factor than boys when of high socio-economic status, but boys gain more than girls when of low socio-economic status.

Six significant interactions are a result of splitting the parent educators by their social-male factor scores. Five of them are three-way interactions of the child's sex, teacher's morale, and parent educator's social-male factor score for each of the child's five self-concept factor change scores (Figure 9 through 13).

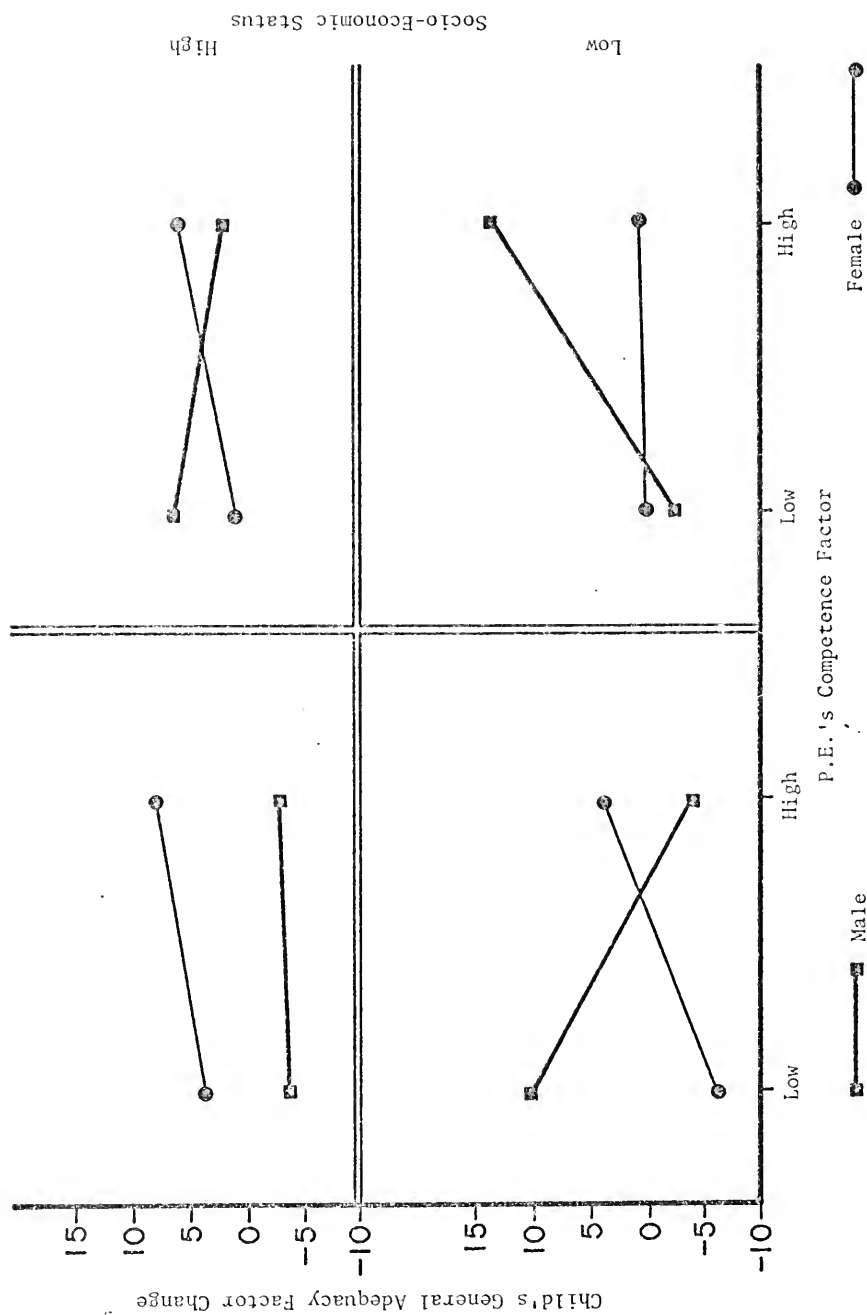


Figure 5. Interaction of Child's Sex and Socio-Economic Status and Pre-Measures of Teacher's Morale and Parent Educator's Competence Factor Score with the Child's Physical Factor Change Score.

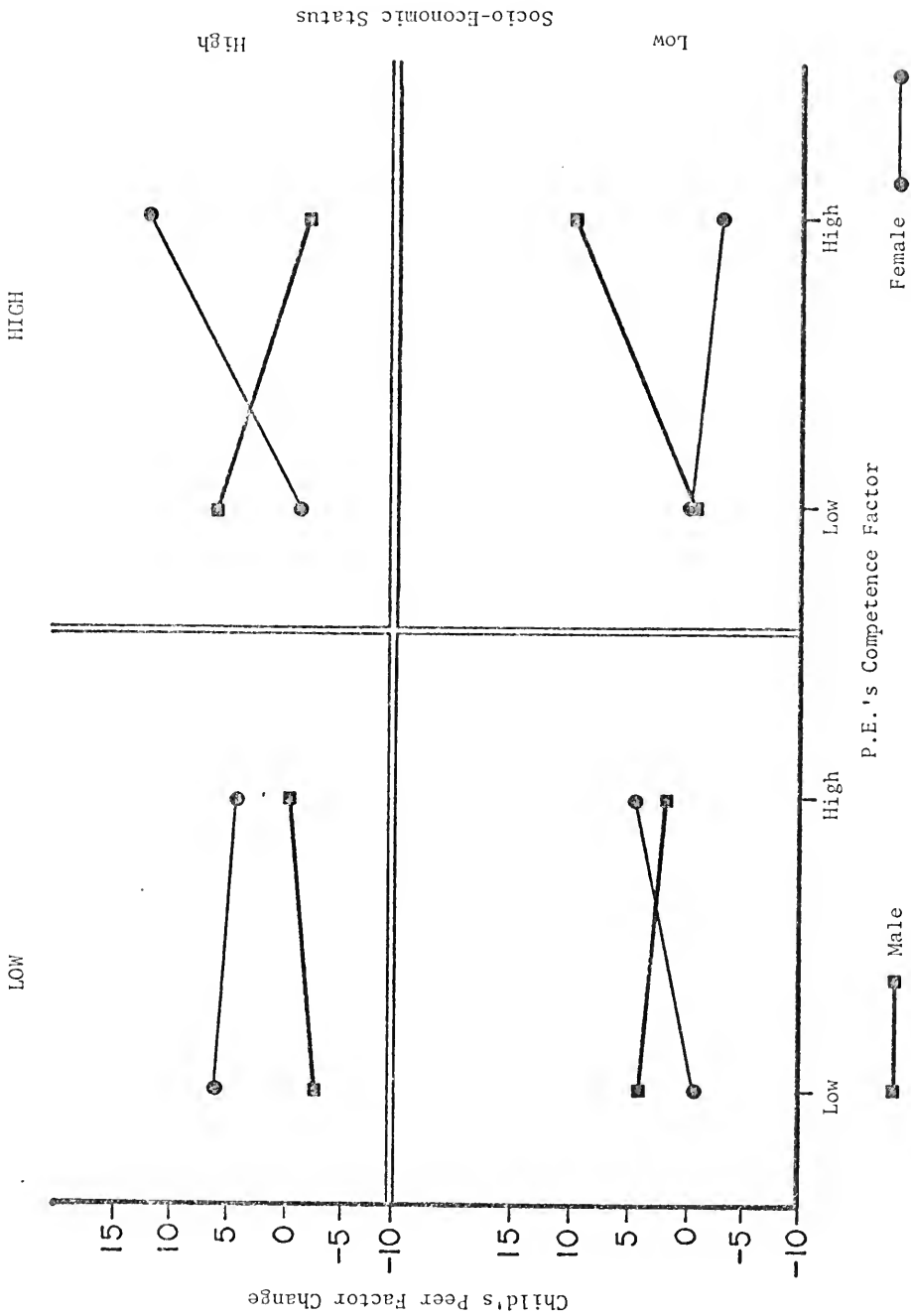


Figure 6. Interaction of Child's Sex and Socio-Economic Status and Pre-Measures of Teacher's Morale and Parent Educator's Competence Factor Score with the Child's Peer Factor Change Score.

LOW

HIGH

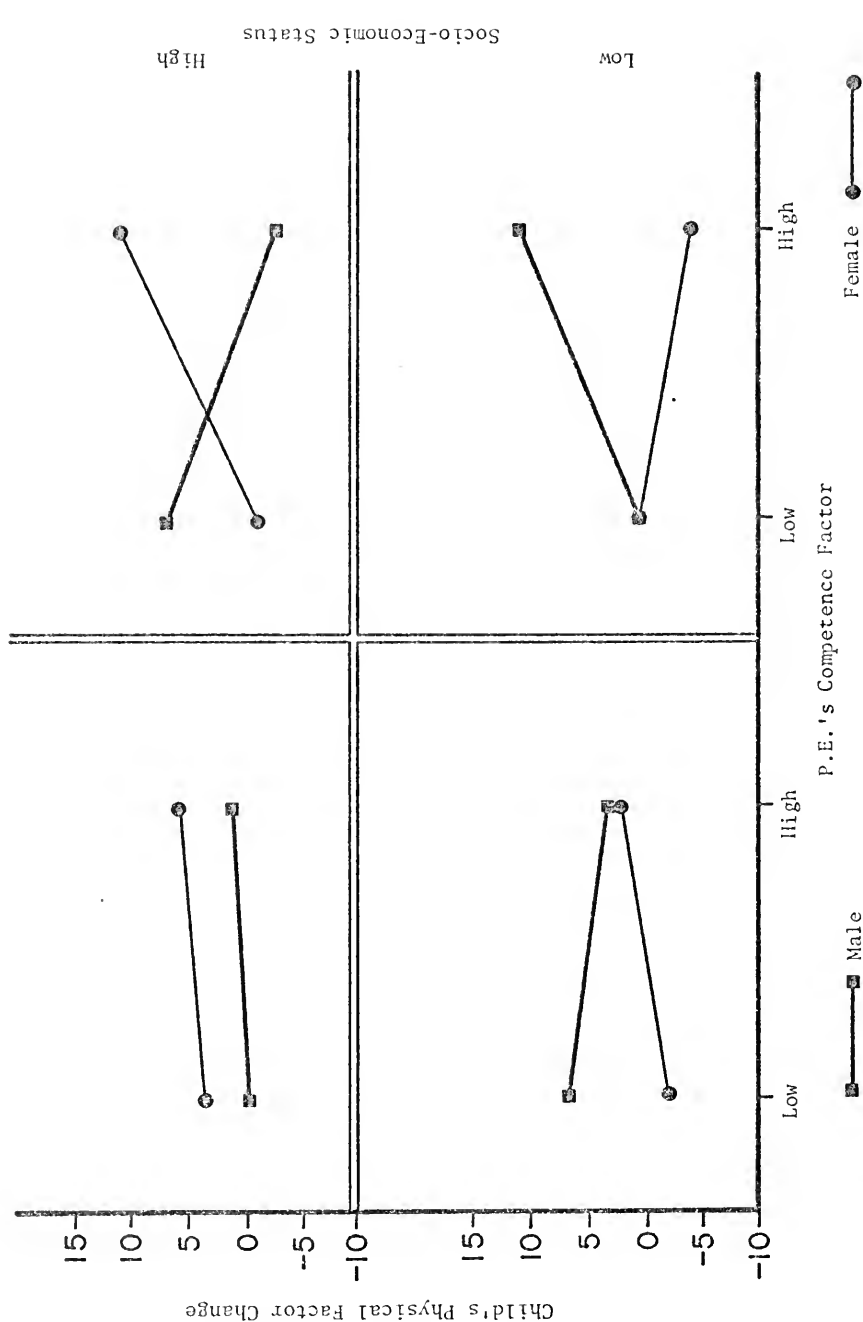


Figure 7. Interaction of Child's Sex and Socio-Economic Status and Pre-Measures of Teacher's Morale and Parent Educator's Competence Factor Score with the Child's Physical Factor Change Score.

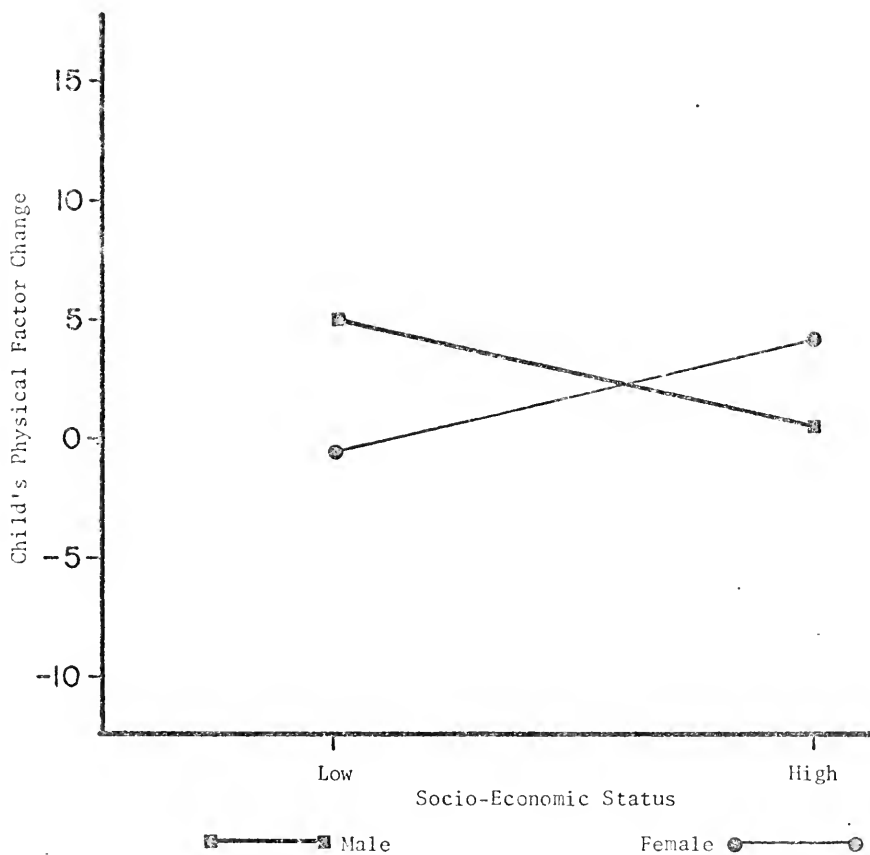


Figure 8. Interaction of Child's Sex and Socio-Economic Status with the Child's Physical Factor Change Score.

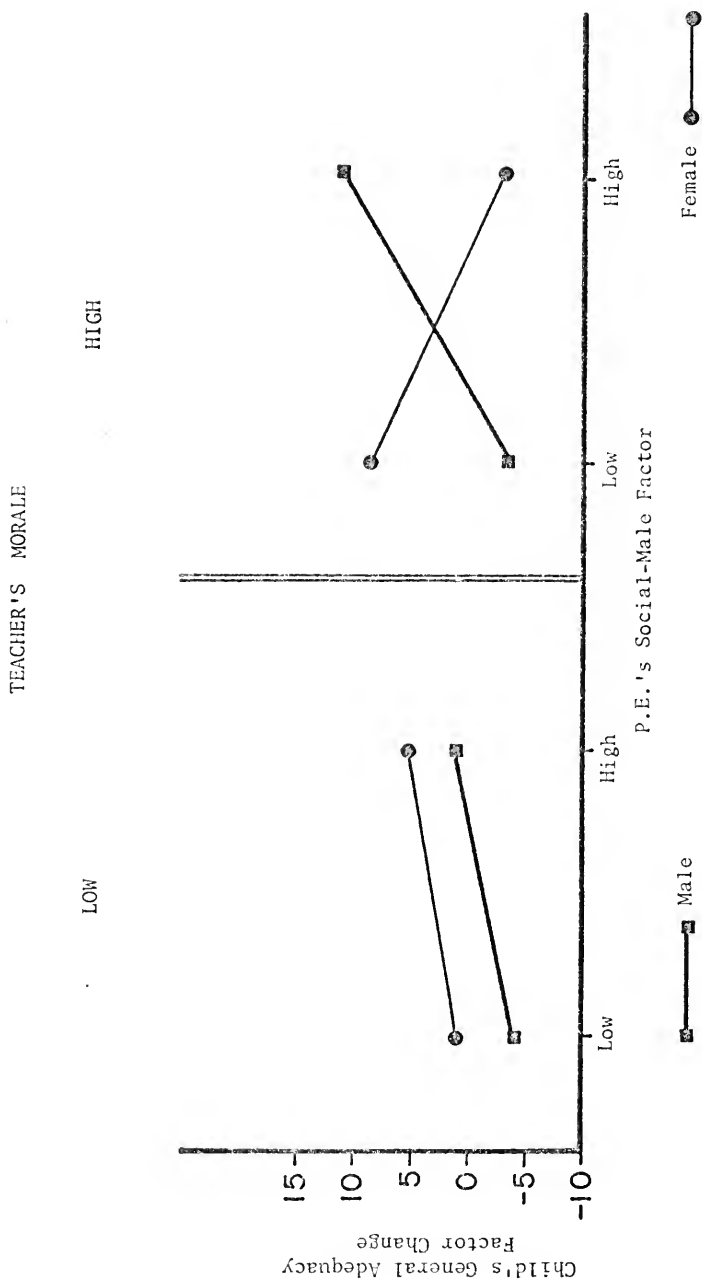


Figure 9. Interaction of Child's Sex and Pre-Measures of Teacher's Morale and Parent Educator's Social-Male Factor Score with the Child's General Adequacy Factor Change Score.

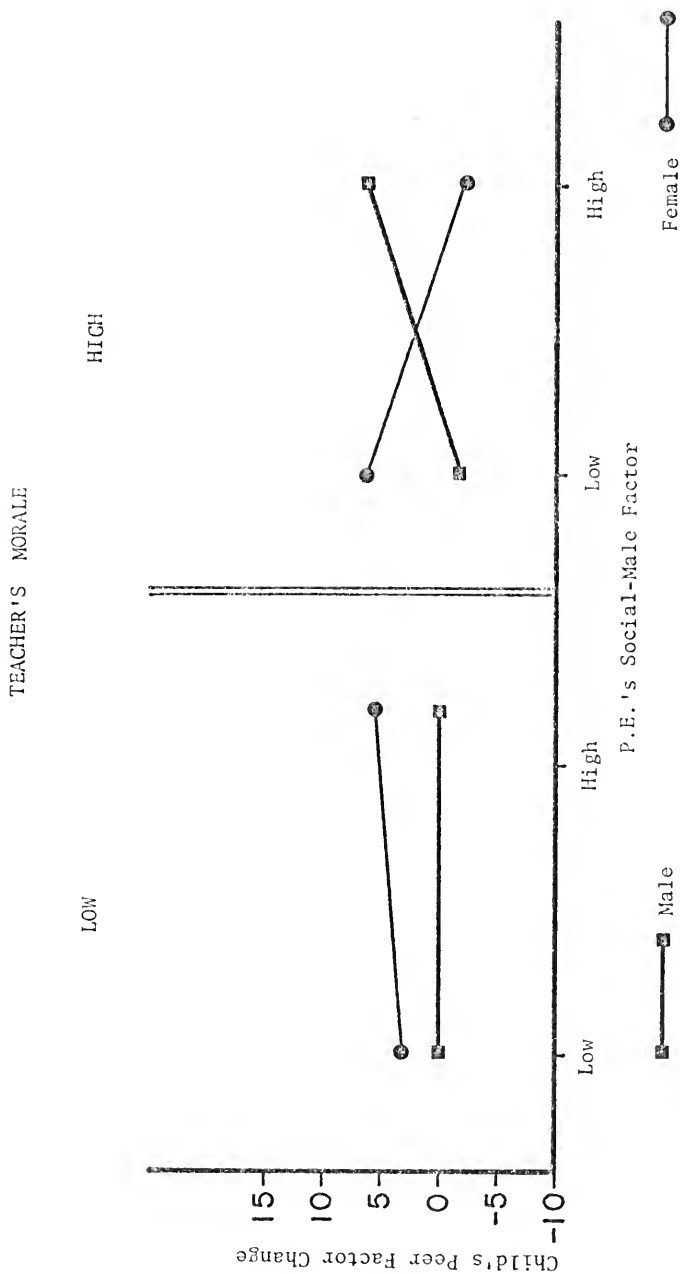


Figure 10. Interaction of Child's Sex and Pre-Measures of Teacher's Morale and Parent Educator's Social-Male Factor Score with the Child's Peer Factor Change Score.

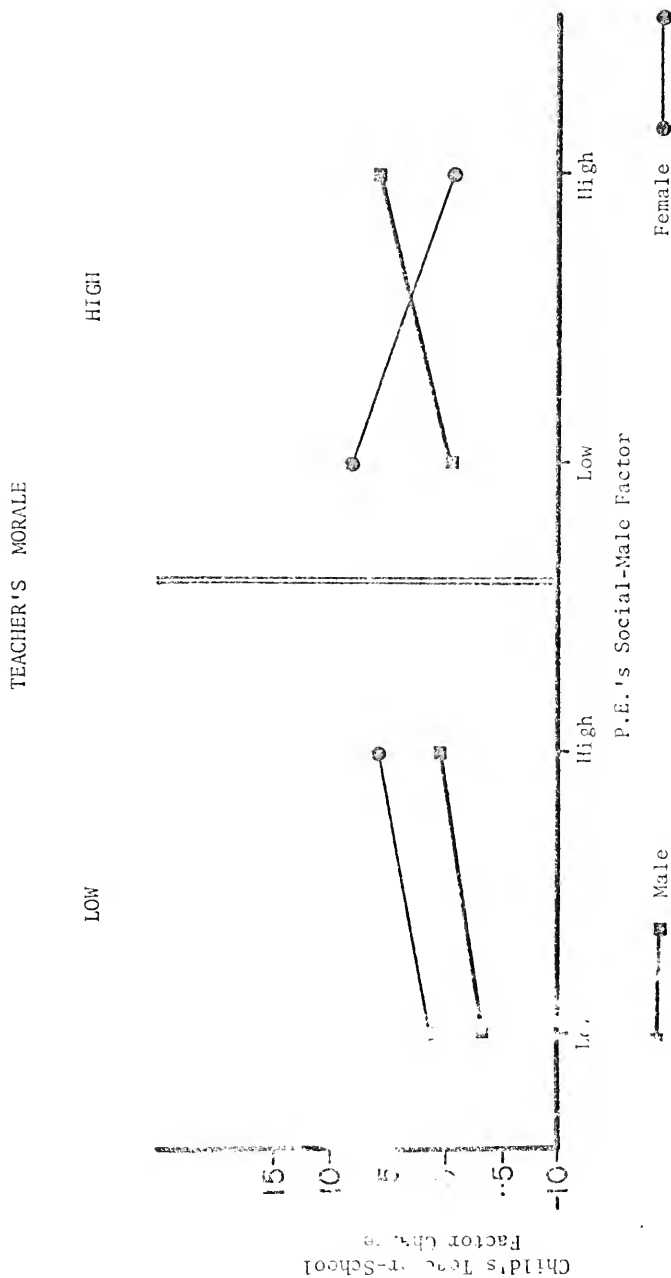


Figure 11. Interaction of Child's Sex and Pre-Measures of Teacher's Morale and Parent Educator's Social-Male Factor Score with the Child's Teacher-School Factor Change Score.

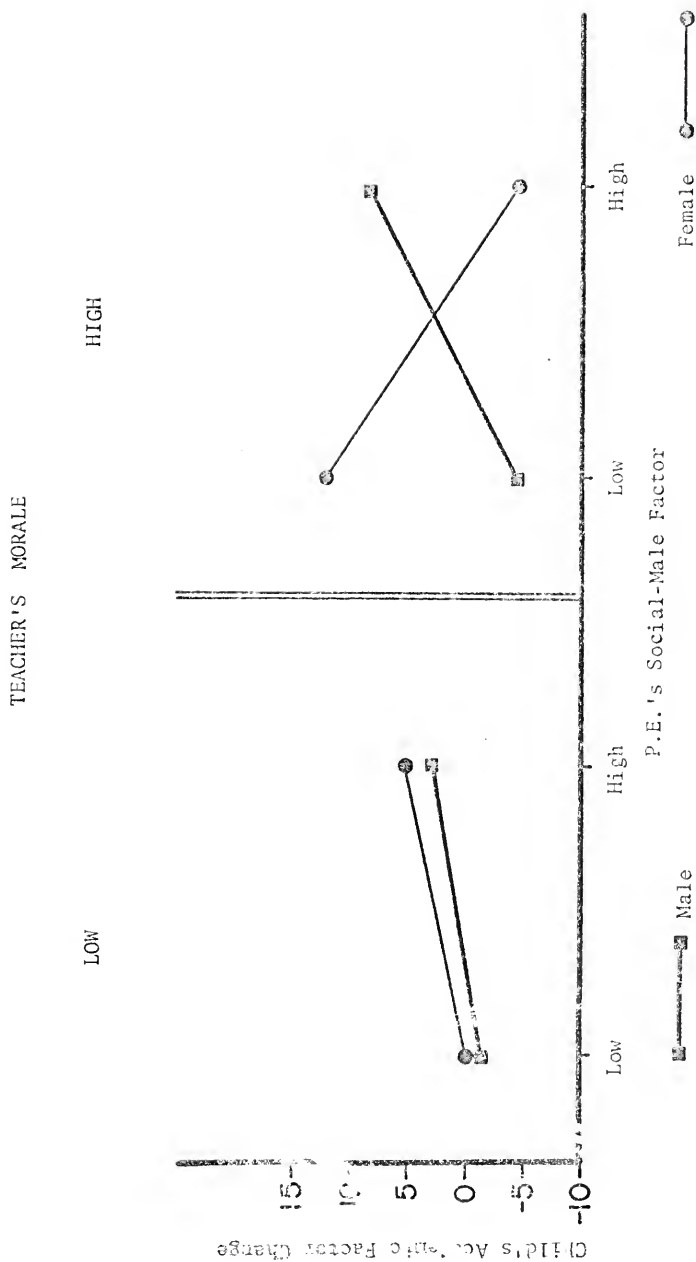


Figure 12. Interaction of Child's Sex and Pre-Measures of Teacher's Morale and Parent Educator's Social-Male Factor Score with the Child's Academic Factor Change Score.

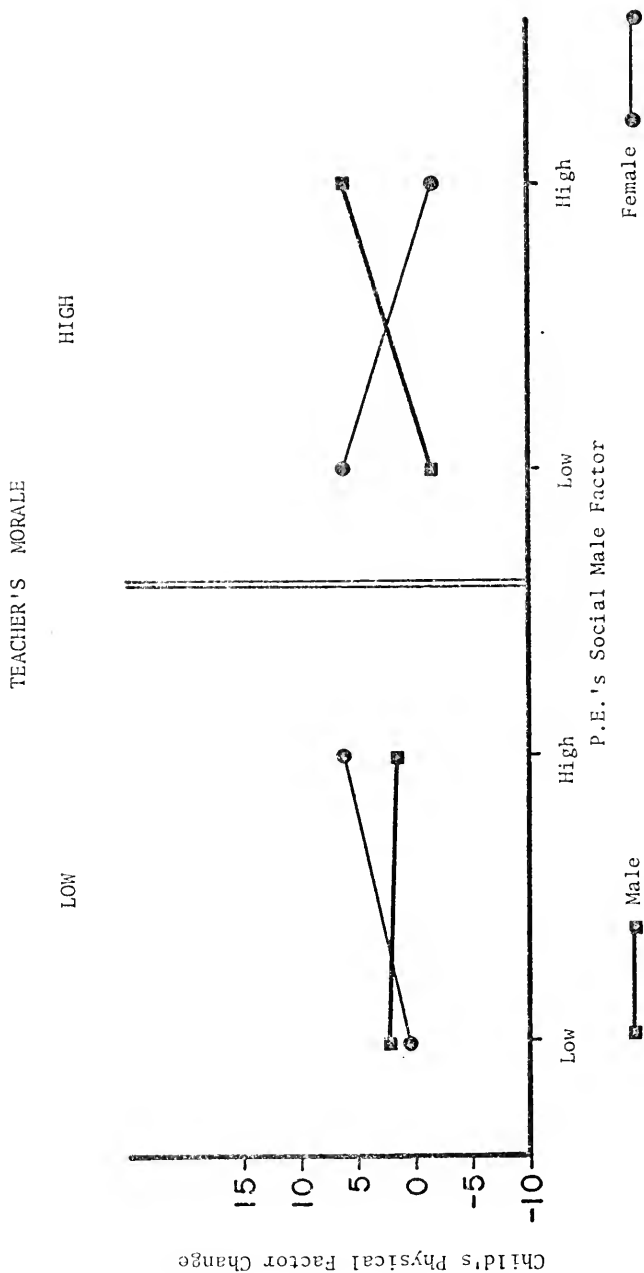


Figure 13. Interaction of Child's Sex and Pre-Measures of Teacher's Morale and Parent Educator's Social-Male Factor Score with the Child's Physical Factor Change Score.

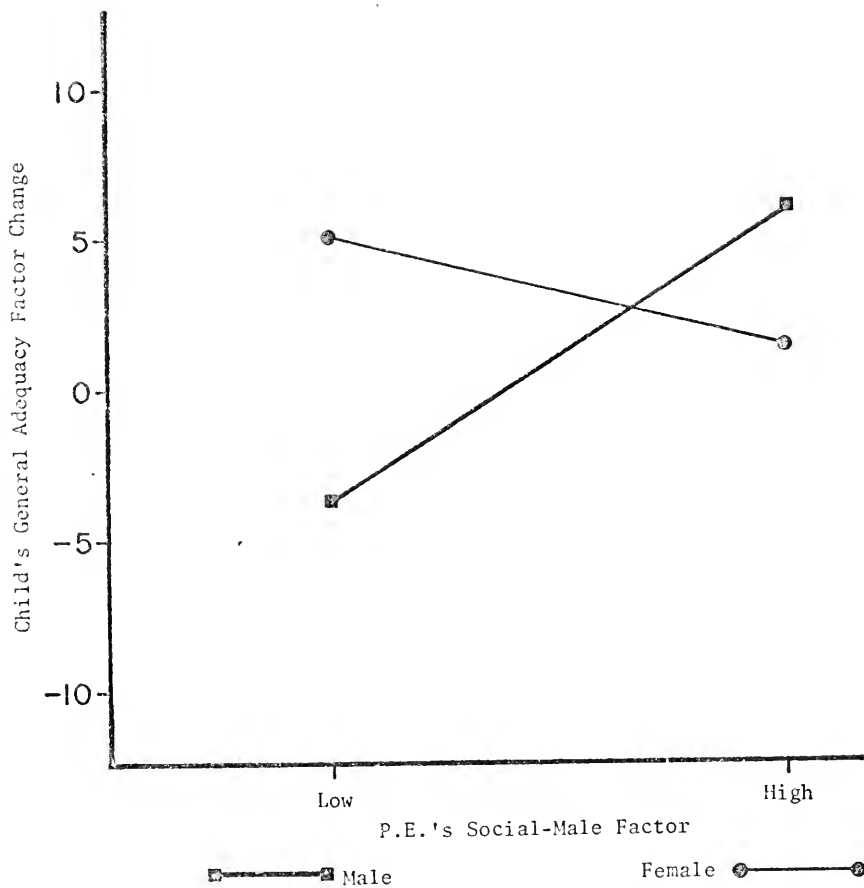


Figure 14. Interaction of Child's Sex and the Pre-Measure of Parent Educator's Social-Male Factor Score with the Child's General Adequacy Factor Change Score.

The sixth significant result is a two-way interaction of the child's sex and parent educator's social-male factor score with the child's general adequacy factor change score (Figure 14).

Figures 9 through 13 all show similar trends. When the teacher's morale is low, females increase more than males regardless of the parent educator's social-male factor. In classrooms where the teacher's morale is high, high parent educator social-male factor scores tend to be related to increases in males' self-concepts and decreases in females' self-concepts. The opposite findings prevail when the parent educator's social-male factor is low.

Figure 14 shows that, in general, boys increase more than girls in feelings of general adequacy when they have a parent educator with a high social-male factor score. Boys tend to lose and girls tend to gain in general adequacy when the parent educator's social-male factor is low.

The ten significant interaction results lead us to accept hypothesis nine. The way in which a child's self-concept changes over the school year is a complex interaction of his sex and socio-economic status, his parent educator's self-concept and his teacher's morale. Significant interactions emerged with only two parent educator self-concept factor splits and the trends of the groups of three- and four-way interactions were similar for each of the child's self-concept factors. This is an indication that the results were not an outcome of chance.

In summary, the results indicate that, at entry into the program, the child's self-concept does not appear to be related to mother's self-concept. Changes in mother's, parent educator's and child's

self-concepts are not simple effects of teacher's morale, parent educator's self-concept or child's sex and socio-economic class. Changes in the child's self-concept are a function of a complex interaction of classroom variables and child's sex and socio-economic status.

CHAPTER V

DISCUSSION OF RESULTS

Hypothesis one and two are not confirmed. There appears to be no relationship based on our measures between the mother's and the child's self-concept. It may be that little relationship actually exists or that our measures are not valid or reliable. Testing error is posited to be a major source of error which may mask any relationships which may exist, but are certainly not revealed by our data.

Most of the research dealing with the question of the self-concept relationship as a function of socio-economic status judges class on a variety of different bases, only one of which may be family income. Other studies cited in the review of the literature used parent's occupation or housing districts to determine social class. In this study the only basis for inclusion into a socio-economic class was family income, low socio-economic status being indicated when the family income was below the poverty line set by O.E.O. standards. (See Appendix I). Thus, class distinction in this study is one of relative income. In actuality, the high socio-economic group may represent middle or upper lower class as well as members of the middle class.

Tables 2 and 3 show pre- and posttest means and standard deviations for mothers and children of low and high socio-economic

status families. The data indicates that the low socio-economic class scored slightly lower on all mother and child pretest variables and were less variable on eight of ten measures than the high socio-economic class. The lower variances may indicate that upon entry into the program, the poverty group is more homogeneous than the high socio-economic group and thus represents a better defined social grouping. To a degree, this confirms our doubts about the true class distinctions implied by the high socio-economic status label.

This uncertainty about the degree of separation of the socio-economic classes, which may be a factor in the negative results we have found for hypothesis two, is also applicable to the discussion of the negative results found in hypothesis six, concerning the change in the child's self-concept over the school year as a function of his socio-economic status.

Hypothesis three was not accepted. There is no indication that the success of the parent educator or the changes in her self-concept over the school year is related to the teacher's morale at the beginning of the school year.

Hypothesis four was not confirmed. No relationship between the parent educator's pre-measures of self-concept and the change of mothers' self-concepts over the school year was found.

Hypotheses five through eight were not accepted. None of the main factors of child's sex and socio-economic status, teacher's morale, or parent educator's self-concept measures were independently related to changes in the child's self-concept measures over the school year.

The results of this study indicate that child's socio-economic status is not related to the way his self-concept measures change over the school year. We have noted that the variable of socio-economic status only discriminates between children whose families have incomes above or below the poverty line. It is not clear to what degree this classification separates the two groups in relation to other social class factors (See page 86). While Soares and Soares (1971) found that middle class children had lower self-concepts than under-privileged class children, Samuels (1969) found that the opposite tendency is true. The literature relating social class and self-concept is not conclusive on this point. Rosenberg (1965) states, "There is no indication that the distribution of self-acceptance in a group is related to the social prestige of that group in American society." Coopersmith (1967) states, "Poverty and over-population may have deleterious consequences upon other personality traits, but...they have little, if any effect upon self-esteem." Carter (1968), Soares and Soares (1969) and Trowbridge (1970) feel that lower socio-economic status and cultural disadvantage do not necessarily produce negative self-concepts in lower class children as compared to children in better environments. In this study we find no significant differences in the way a child's self-concept changes over the school year solely due to whether his family's income is above or below the poverty line, although the high socio-economic status group scored slightly, but not reliably, higher than the low group on both pre and post self-concept measures.

Little research has been undertaken to study the effects of

the self-concepts of persons such as the Florida Model parent educator on changes in children's self-concepts. The parent educators in this study tended to gain on the average of three of the four measures used in the analysis of the child's scores (see Table 12). The data, however, do not indicate that any factor of the parent educator's self-concept is independently related to greater or less change in the child's self-concept measures.

There are no significant differences in the child's self-concept change scores related to teacher's morale. Blume (1968) showed that teacher's self-concept was related to those of her students, but this is no indication that teachers with high morale affect the self-concepts of their students more or less than teachers with low morale. In future studies it is suggested that self-concept measures be taken on the teacher so that the influence of her self-concept on the self-concepts of her students can be evaluated along with those of the parent educator and the mother.

Hypothesis nine, that there were interactions among the four experimental variables related to change in the child's self-concept, was confirmed. Although none of the four independent factors were directly related to change in the child's self-concept, ten interactions of the child's sex and socio-economic status, teacher's morale and parent educator's self-concept were significantly related to the change in the child's self-concept over the school year.

Figure 5 through 14 show the two, three and four-way inter-

actions of the child's sex and socio-economic status, teacher's morale and parent educator's self-concept factors. The interactions are complex and are of little value in providing knowledge of the way in which a child's self-concept changes.

In general, males increase most in self-concept in a class with high teacher morale and a high social-male parent educator. Under most other conditions, the self-concepts of the females seem to increase more than the males.

Without more consistent results, it is difficult to make any recommendations of what classroom conditions are most conducive to positive changes in childrens' self-concepts.

A complete summary of results and implications for further research will be discussed in the next chapter.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The purpose of this study was to analyze the interrelationships of the self-concepts of the parent educators, mothers and children and the morale of the teachers in the Florida Model Follow Through program. Particular emphasis was placed on how the child's self-concept was related to his mother's self-concept as a function of the child's sex and socio-economic status and how changes in the child's self-concept were functions of the child's sex and socio-economic status, and the pre-measures of his teacher's morale and his parent educator's self-concept.

It was hypothesized that there was a relationship between mother's and child's self-concept measures and that the degree of this relationship was a function of the child's sex and socio-economic status. The changes in the parent educator's self-concept measures over the school year were hypothesized to be a function of the teacher's morale measured at the beginning of the school year. Mother's self-concept changes over the school year were hypothesized to be a function of the parent educator's self-concept measures at the beginning of the school year.

Finally, it was hypothesized that changes in the child's self-concept measures over the school year were a function of the child's sex and socio-economic status and the pre-measures of teacher's morale and parent educator's self-concept.

Self-concept measures were collected on 354 K-3rd grade Follow Through children and their mothers in one community. Morale measures were taken on twelve teachers and self-concept measures were collected on the twenty-four parent educators represented in the twelve classrooms. Ninety-nine mother-child pairs were chosen for the study sample because the data sets for each of the pairs were complete. The I Feel...Me Feel, Self-Concept Appraisal Scale was used to measure the child's self-concept. The mothers' and parent educators' self-concepts were measured by the How I See Myself Scale and the Social Reaction Inventory. Teachers' morale was assessed using the Purdue Teacher Opinionnaire.

Mother's pre-measures of self-concept were correlated with the child's pre-measures of self-concept. This was done to determine whether the relationship between the self-concepts of mothers and children was a function of the child's sex and socio-economic status. No relationships were found between mother's and child's self-concept as a function of sex or socio-economic status.

Analyses of variance were run to determine whether the teacher's morale at the beginning of the school year was related to changes in self-concept and success of her parent educator over the school year and whether the parent educator's self-concept at the

beginning of the school year was related to changes in the self-concepts of her mothers over the school year. The results of these analyses were not significant, though in general, parent educators tended to increase in three of four self-concept measures and mothers tended to decrease in two of four self-concept measures.

In an attempt to determine if the changes in the child's self-concept measures were a function of the child's sex and socio-economic status and the pre-measures of his teacher's morale and parent educator's self-concept, analyses of covariance were run on the child's change scores, with mother's self-concept measures being the covariates. No main effects were significant, though ten significant interactions of some or all of the four factors of the analyses emerged.

The results of the study indicate that none of the original hypotheses was accepted. The way in which a child's self-concept changes over the school year is a very complex interaction of his sex and socio-economic status and the pre-measures of his teacher's morale and his parent educator's self-concept. The data do not provide any practical information to maximize the positive growth potential of a child's self-concept in his academic environment.

It is suggested that one improvement in future studies would be to have an independent group of professional testers administer all the tests in the project. It is probably a difficult task, even with the emphasis on proper procedures, for parent educators, who are so closely involved with the care and education of their

student, to remove all biases in the testing situation.

The five factors of the I Feel...Me Feel Scale were highly correlated with each other in this sample (Tables 4-7) indicating that each factor may not be revealing a different aspect of self-concept as originally reported by Yeatts and Bentley (1970). This self-report measure and the How I See Myself Scale on the mother may themselves be problematic in the disclosure of the relationships between mother's and child's self-concepts if they exist. It is suggested that future work concerning the self-concept include improvement of measurement techniques.

In future research, it is suggested that measures be taken of how the parent educator's role is actually perceived by the people with whom she works. This will help to control the variance due to structural differences in relationships with the parent educator and make examination of the self-concept changes related to these interactions a more precise task.

In place of morale measures, one might take measures of the teacher's self-concept in future studies, so that the changes in parent educator's and students' self-concepts may be examined as a function of teacher's self-concept.

Using self-report instruments as the I Feel...Me Feel Scale for children and the How I See Myself Scale for adults, no relationship between the child's self-concept and the mother's self-concept has been shown in this study. There may be no theoretical validity to the assumption that there is a relationship between mother's and child's self-concept. If a relationship

does exist, it may not be revealed by the self-report instruments used in this study or because of the particular procedures and techniques employed in the administration of these instruments. The way in which the child's self-concept changes is a complex interaction of classroom variables and his sex and socio-economic status.

Appendix IOffice of Economic Opportunity Poverty Guidelines for
All States Except Alaska and Hawaii.

| <u>Family Size</u> | <u>Nonfarm Family</u> | <u>Farm Family</u> |
|--------------------|-----------------------|--------------------|
| 1 | \$1,900 | \$1,600 |
| 2 | 2,500 | 2,000 |
| 3 | 3,100 | 2,500 |
| 4 | 3,800 | 3,200 |
| 5 | 4,400 | 3,700 |
| 6 | 5,000 | 4,200 |
| 7 | 5,600 | 4,700 |

For families with more than 7 members, add \$600 for each additional member in a nonfarm family and \$500 for each additional member in a farm family.

Appendix II

TABLE 29.

Analysis of Variance of Parent Educator's
Social Reaction Inventory Change Score as a
Function of the Pre-Measure of Teacher's Morale.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|----------------|-----------------------|-----------|--------------------|----------------|
| Teacher Morale | 10.67 | 1 | 10.67 | 0.94 |
| Error | 248.67 | 22 | 11.30 | |
| Total | 259.33 | 23 | | |

TABLE 30.

Analysis of Variance of Parent Educator's
Success as a Function of the
Pre-Measure of Teacher's Morale.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|----------------|-----------------------|-----------|--------------------|----------------|
| Teacher Morale | 0.17 | 1 | 0.17 | 0.0035 |
| Error | 1032.77 | 22 | 46.94 | |
| Total | 1032.94 | 23 | | |

TABLE 31.

Analysis of Variance of Parent Educator's
Interpersonal Adequacy Factor Change Score as a
Function of the Pre-Measure of Teacher's Morale.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|----------------|-----------------------|-----------|--------------------|----------------|
| Teacher Morale | 6.00 | 1 | 6.00 | 0.13 |
| Error | 1029.83 | 22 | 46.81 | |
| Total | 1035.83 | 23 | | |

TABLE 32.

Analysis of Variance of Parent Educator's
Social-Male Factor Change Score as a Function of the
Pre-Measure of Teacher's Morale.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|----------------|-----------------------|-----------|--------------------|----------------|
| Teacher Morale | 48.17 | 1 | 48.17 | 1.24 |
| Error | 856.33 | 22 | 38.92 | |
| Total | 904.5 | 23 | | |

TABLE 33.

Analysis of Variance of Parent Educator's
Competence Factor Change Score as a Function of the
Pre-Measure of Teacher's Morale.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|----------------|-----------------------|-----------|--------------------|----------------|
| Teacher Morale | 4.17 | 1 | 4.17 | 0.50 |
| Error | 185.17 | 22 | 8.42 | |
| Total | 189.33 | 23 | | |

TABLE 34.

Analysis of Variance of the Mother's Interpersonal Adequacy Factor
Change Score as a Function of the Pre-Measure of the
Parent Educator's Interpersonal Adequacy Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|--------------------------------|---------------------------|-----------|------------------------|----------------|
| P.E. Interpersonal Adequacy | 1.26 | 1 | 1.26 | 0.03 |
| Error | 4592.14 | 97 | 47.34 | |
| Total | 4593.40 | 98 | | |

TABLE 35.

Analysis of Variance of the Mother's Interpersonal Adequacy Factor
Change Score as a Function of the Pre-Measure of the
Parent Educator's Social-Male Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|------------------|---------------------------|-----------|------------------------|----------------|
| P.E. Social-Male | 5.75 | 1 | 5.75 | 0.12 |
| Error | 4587.65 | 97 | 47.30 | |
| Total | 4593.40 | 98 | | |

TABLE 36.

Analysis of Variance of the Mother's Interpersonal Adequacy Factor
Change Score as a Function of the Pre-Measure of the
Parent Educator's S. R. I. Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|---------------|---------------------------|-----------|------------------------|----------------|
| P.E. S. R. I. | 24.51 | 1 | 24.51 | 0.52 |
| Error | 4568.89 | 97 | 47.10 | |
| Total | 4593.40 | 98 | | |

TABLE 37.

Analysis of Variance of the Mother's Interpersonal Adequacy Factor
Change Score as a Function of the Pre-Measure of the
Parent Educator's Competence Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|-----------------|---------------------------|-----------|------------------------|----------------|
| P.E. Competence | 4.38 | 1 | 4.38 | 0.09 |
| Error | 4589.02 | 97 | 47.31 | |
| Total | 4593.40 | 98 | | |

TABLE 38.

Analysis of Variance of the Mother's Social-Male Factor Change Score as a Function of the Pre-Measure of the Parent Educator's Social-Male Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|------------------|-----------------------|-----------|--------------------|----------------|
| P.E. Social-Male | 0.42 | 1 | 0.42 | 0.01 |
| Error | 2933.75 | 97 | 30.24 | |
| Total | 2934.17 | 98 | | |

TABLE 39.

Analysis of Variance of the Mother's Social-Male Factor Change Score As a Function of the Pre-Measure of the Parent Educator's S. R. I. Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|---------------|-----------------------|-----------|--------------------|----------------|
| P.E. S. R. I. | 28.94 | 1 | 28.94 | 0.97 |
| Error | 2905.23 | 97 | 29.95 | |
| Total | 2934.17 | 98 | | |

TABLE 40.

Analysis of Variance of the Mother's Social-Male Factor Change Score as a Function of the Pre-Measure of the Parent Educator's Competence Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|-----------------|-----------------------|-----------|--------------------|----------------|
| P.E. Competence | 30.13 | 1 | 30.13 | 1.00 |
| Error | 2904.04 | 97 | 29.94 | |
| Total | 2934.17 | 98 | | |

TABLE 41.

Analysis of Variance of the Mother's Social-Male Factor Change Score as a Function of the Pre-Measure of the Parent Educator's Interpersonal Adequacy Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|-----------------------------|-----------------------|-----------|--------------------|----------------|
| P.E. Interpersonal Adequacy | 0.06 | 1 | 0.06 | 0.00 |
| Error | 2934.11 | 97 | 30.25 | |
| Total | 2934.17 | 98 | | |

TABLE 42.

Analysis of Variance of the Mother's Competence Factor Change
Score as a Function of the Pre-Measure of the Parent Educator's
S. R. I. Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|---------------|---------------------------|-----------|------------------------|----------------|
| P.E. S. R. I. | 25.87 | 1 | 25.87 | 2.87 |
| Error | 874.30 | 97 | 9.01 | |
| Total | 900.18 | 98 | | |

TABLE 43.

Analysis of Variance of the Mother's Competence Factor Change
Score as a Function of the Pre-Measure of the Parent Educator's
Interpersonal Adequacy Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|--------------------------------|---------------------------|-----------|------------------------|----------------|
| P.E. Interpersonal Adequacy | 10.16 | 1 | 10.16 | 1.11 |
| Error | 890.01 | 97 | 9.18 | |
| Total | 900.17 | 98 | | |

TABLE 44.

Analysis of Variance of the Mother's Competence Factor Change Score as a Function of the Pre-Measure of the Parent Educator's Competence Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|-----------------|-----------------------|-----------|--------------------|----------------|
| P.E. Competence | 5.57 | 1 | 5.57 | 0.60 |
| Error | 894.60 | 97 | 9.22 | |
| Total | 900.17 | 98 | | |

TABLE 45.

Analysis of Variance of the Mother's Competence Factor Change Score as a Function of the Pre-Measure of the Parent Educator's Social-Male Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|------------------|-----------------------|-----------|--------------------|----------------|
| P.E. Social-Male | 0.33 | 1 | 0.33 | 0.04 |
| Error | 899.85 | 97 | 9.28 | |
| Total | 900.18 | 98 | | |

TABLE 46.

Analysis of Variance of the Mother's S. R. I. Change Score as a Function of the Pre-Measure of the Parent Educator's S. R. I. Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|---------------|-----------------------|-----------|--------------------|----------------|
| P.E. S. R. I. | 9.27 | 1 | 9.2744 | 1.33 |
| Error | 677.41 | 97 | 6.98 | |
| Total | 686.68 | 98 | | |

TABLE 47.

Analysis of Variance of the Mother's S. R. I. Change Score as a Function of the Pre-Measure of the Parent Educator's Interpersonal Adequacy Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|-----------------------------|-----------------------|-----------|--------------------|----------------|
| P.E. Interpersonal Adequacy | 11.21 | 1 | 11.21 | 1.61 |
| Error | 675.47 | 97 | 6.96 | |
| Total | 686.68 | 98 | | |

TABLE 48.

Analysis of Variance of the Mother's S. R. I. Change Score as a
Function of the Pre-Measure of the Parent Educator's
Competence Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|-----------------|---------------------------|-----------|------------------------|----------------|
| P.E. Competence | 2.51 | 1 | 2.51 | 0.36 |
| Error | 684.18 | 97 | 7.05 | |
| Total | 686.68 | 98 | | |

TABLE 49.

Analysis of Variance of the Mother's S. R. I. Change Score as a
Function of the Pre-Measure of the Parent Educator's
Social-Male Factor Score.

| <u>Source</u> | <u>Sum of Squares</u> | <u>DF</u> | <u>Mean Square</u> | <u>F Ratio</u> |
|------------------|---------------------------|-----------|------------------------|----------------|
| P.E. Social-Male | 7.66 | 1 | 7.66 | 1.09 |
| Error | 679.03 | 97 | 7.00 | |
| Total | 686.68 | 98 | | |

TABLE 50.

Means and Standard Deviations of Child's General Adequacy Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Interpersonal Adequacy Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|---------------|-----------------------------|-------|-----------------------------|-------|
| | | P.E. Interpersonal Adequacy | | P.E. Interpersonal Adequacy | |
| | | Low | High | Low | High |
| Male | Low | | | | |
| | Pre \bar{X} | 58.40 | 64.00 | 66.57 | 57.67 |
| | Pre S.D. | 10.38 | 2.92 | 10.92 | 2.38 |
| | \bar{X} | -1.40 | 1.20 | -3.86 | 7.67 |
| | S.D. | 15.21 | 6.46 | 6.18 | 18.64 |
| | n | 5 | 5 | 7 | 6 |
| | High | | | | |
| | Pre \bar{X} | 62.80 | 60.50 | 64.88 | 65.00 |
| | Pre S.D. | 10.18 | 8.51 | 12.18 | 8.59 |
| | \bar{X} | -2.20 | -4.10 | 3.63 | 3.00 |
| | S.D. | 3.42 | 8.52 | 16.55 | 10.36 |
| | n | 5 | 10 | 8 | 4 |
| Female | Low | | | | |
| | Pre \bar{X} | 63.71 | 63.00 | 64.20 | 62.40 |
| | Pre S.D. | 7.20 | 12.93 | 4.32 | 4.56 |
| | \bar{X} | -0.86 | 5.33 | 0.60 | -0.20 |
| | S.D. | 6.47 | 14.74 | 9.18 | 6.94 |
| | n | 7 | 5 | 5 | 5 |
| | High | | | | |
| | Pre \bar{X} | 63.00 | 62.33 | 66.00 | 62.50 |
| | Pre S.D. | 9.76 | 5.22 | 7.87 | 13.45 |
| | \bar{X} | 4.50 | 4.33 | 2.50 | 4.17 |
| | S.D. | 8.92 | 9.29 | 7.14 | 16.48 |
| | n | 10 | 9 | 4 | 6 |

TABLE 51.

Means and Standard Deviations of Child's Peer Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Interpersonal Adequacy Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|-----------|-----------------------------|-------|-----------------------------|-------|
| | | Low | | High | |
| | | P.E. Interpersonal Adequacy | | P.E. Interpersonal Adequacy | |
| | | Low | High | Low | High |
| Male | Low | 44.00 | 51.20 | 52.29 | 46.83 |
| | Pre S.D. | 12.73 | 5.43 | 10.45 | 5.02 |
| | \bar{X} | 5.20 | -0.20 | -1.57 | 6.17 |
| | S.D. | 12.87 | 7.89 | 4.28 | 18.47 |
| | n | 5 | 5 | 7 | 7 |
| | High | 47.60 | 51.90 | 53.13 | 59.25 |
| Female | Low | 54.71 | 48.00 | 55.60 | 52.80 |
| | Pre S.D. | 4.27 | 12.00 | 4.34 | 4.02 |
| | \bar{X} | 0.57 | 7.67 | 0.60 | -3.80 |
| | S.D. | 3.21 | 15.89 | 5.13 | 5.90 |
| | n | 7 | 3 | 5 | 5 |
| | High | 49.60 | 53.67 | 57.25 | 50.17 |
| | Pre S.D. | 8.51 | 4.68 | 6.45 | 13.55 |
| | \bar{X} | 7.30 | 2.33 | -1.25 | 7.50 |
| | S.D. | 9.29 | 7.57 | 4.99 | 19.61 |
| | n | 10 | 9 | 4 | 6 |

TABLE 52.

Means and Standard Deviations of Child's Teacher-School Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Interpersonal Adequacy Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|--------|-----------------------------|-------|-----------------------------|-------|
| | | P.E. Interpersonal Adequacy | | P.E. Interpersonal Adequacy | |
| | | Low | High | Low | High |
| Male | Low | Pre \bar{X} | 41.80 | 40.29 | 37.50 |
| | | Pre S.D. | 2.59 | 7.43 | 8.02 |
| | | \bar{X} | -2.00 | -1.43 | 4.00 |
| | | S.D. | 5.43 | 3.60 | 13.55 |
| | | n | 5 | 7 | 6 |
| | High | Pre \bar{X} | 38.20 | 39.88 | 43.75 |
| | | Pre S.D. | 6.50 | 9.79 | 5.56 |
| | | \bar{X} | -2.20 | 3.50 | 1.75 |
| | | S.D. | 7.69 | 9.90 | 7.13 |
| | | n | 5 | 8 | 4 |
| Female | Low | Pre \bar{X} | 42.00 | 43.40 | 39.80 |
| | | Pre S.D. | 4.08 | 4.34 | 3.21 |
| | | \bar{X} | 0.57 | 0.80 | 2.00 |
| | | S.D. | 2.99 | 5.36 | 6.56 |
| | | n | 7 | 5 | 5 |
| | High | Pre \bar{X} | 39.40 | 44.25 | 39.00 |
| | | Pre S.D. | 6.33 | 3.86 | 13.13 |
| | | \bar{X} | 3.40 | -2.25 | 4.83 |
| | | S.D. | 6.60 | 3.50 | 16.36 |
| | | n | 10 | 4 | 6 |

TABLE 53.

Means and Standard Deviations of Child's Academic Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Interpersonal Adequacy Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|--------|-----------------------------|-------|-----------------------------|-------|
| | | Low | | High | |
| | | P.E. Interpersonal Adequacy | | P.E. Interpersonal Adequacy | |
| | | Low | High | Low | High |
| Male | Low | Pre \bar{X} | 63.00 | 65.57 | 58.17 |
| | | Pre S.D. | 6.89 | 10.69 | 11.32 |
| | | \bar{X} | 0.80 | -4.86 | 5.17 |
| | | S.D. | 6.83 | 6.77 | 17.86 |
| | | n | 5 | 7 | 6 |
| | High | Pre \bar{X} | 56.70 | 63.50 | 65.25 |
| | | Pre S.D. | 10.27 | 15.30 | 5.44 |
| | | \bar{X} | -2.80 | 1.63 | 3.25 |
| | | S.D. | 11.94 | 18.51 | 4.72 |
| | | n | 10 | 8 | 4 |
| Female | Low | Pre \bar{X} | 58.00 | 60.60 | 59.60 |
| | | Pre S.D. | 13.45 | 7.40 | 3.21 |
| | | \bar{X} | 6.00 | 2.60 | -1.60 |
| | | S.D. | 15.62 | 13.28 | 7.77 |
| | | n | 3 | 5 | 5 |
| | High | Pre \bar{X} | 58.33 | 65.00 | 61.83 |
| | | Pre S.D. | 6.54 | 8.76 | 13.13 |
| | | \bar{X} | 2.67 | 3.25 | 3.83 |
| | | S.D. | 9.17 | 2.87 | 16.70 |
| | | n | 9 | 4 | 6 |

TABLE 54.

Means and Standard Deviations of Child's Physical Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Interpersonal Adequacy-Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | | |
|--------|--------|-----------------------------------|------------------------|-----------------------------|-------|-------|
| | | Low | | High | | |
| | | P.E. Interpersonal Adequacy | | P.E. Interpersonal Adequacy | | |
| Male | Low | Pre \bar{X} | Low | High | Low | High |
| | | Pre S.D. | 42.40 | 42.80 | 46.71 | 42.83 |
| | | \bar{X} | 8.62 | 5.36 | 9.30 | 12.76 |
| | | S.D. | 5.40 | 1.80 | 0.14 | 4.83 |
| | | n | 10.50 | 9.99 | 3.80 | 15.80 |
| | High | Pre \bar{X} | 5 | 5 | 7 | 6 |
| | | Pre S.D. | 43.40 | 45.60 | 46.25 | 54.00 |
| | | \bar{X} | 6.77 | 7.04 | 11.60 | 4.15 |
| | | S.D. | 4.80 | -2.20 | 3.13 | -3.00 |
| | | n | 6.57 | 6.75 | 14.28 | 4.76 |
| Female | Low | Pre \bar{X} | 5 | 10 | 8 | 4 |
| | | Pre S.D. | 50.71 | 44.00 | 49.40 | 48.00 |
| | | \bar{X} | 4.11 | 11.13 | 3.21 | 5.70 |
| | | S.D. | -2.29 | 7.33 | -1.00 | -3.00 |
| | | n | 2.56 | 13.58 | 4.00 | 8.03 |
| | High | Pre \bar{X} | 7 | 3 | 5 | 5 |
| | | Pre S.D. | 46.80 | 47.22 | 51.50 | 45.67 |
| | | \bar{X} | 5.77 | 6.34 | 5.69 | 13.32 |
| | | S.D. | 4.60 | 3.11 | 0.50 | 5.50 |
| | | n | 5.93 | 8.05 | 5.26 | 18.26 |
| | | 10 <th>9<th>4<th>6</th></th></th> | 9 <th>4<th>6</th></th> | 4 <th>6</th> | 6 | |

TABLE 55.

Means and Standard Deviations of Child's Teacher-School Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Competence Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|--------|----------------|-----------------|----------|-----------------|
| | | Low | | High | |
| | | P.E. Low | Competence High | P.E. Low | Competence High |
| Male | Low | Pre \bar{X} | 38.71 | 39.60 | 37.00 |
| | | Pre S.D. | 8.64 | 6.70 | 4.55 |
| | | \bar{X} | -3.14 | 0.40 | 3.33 |
| | | S.D. | 8.93 | 5.46 | 20.03 |
| | n | 3 | 7 | 10 | 3 |
| | | | | | |
| | High | Pre \bar{X} | 39.38 | 37.67 | 44.67 |
| | | Pre S.D. | 5.73 | 10.52 | 5.13 |
| | | \bar{X} | 0.38 | 5.83 | 0.00 |
| | | S.D. | 5.97 | 10.30 | 6.54 |
| | n | 7 | 8 | 6 | 6 |
| | | | | | |
| Female | Low | Pre \bar{X} | 40.17 | 42.14 | 40.33 |
| | | Pre S.D. | 7.28 | 4.49 | 5.13 |
| | | \bar{X} | 3.83 | 0.57 | 3.33 |
| | | S.D. | 8.54 | 5.25 | 7.37 |
| | n | 4 | 6 | 7 | 3 |
| | | | | | |
| | High | Pre \bar{X} | 39.20 | 44.67 | 35.75 |
| | | Pre S.D. | 3.83 | 3.08 | 12.33 |
| | | \bar{X} | 3.80 | -1.67 | 7.50 |
| | | S.D. | 3.96 | 2.73 | 20.43 |
| | n | 14 | 5 | 6 | 4 |
| | | | | | |

TABLE 56.

Means and Standard Deviations of Child's Academic Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Competence Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | |
|--------|--------|----------------|-----------------|----------|-----------------|
| | | Low | | High | |
| | | P.E. Low | Competence High | P.E. Low | Competence High |
| Male | Low | Pre \bar{X} | 58.14 | 63.90 | 56.33 |
| | | Pre S.D. | 12.42 | 9.39 | 12.01 |
| | | \bar{X} | 11.67 | -2.20 | 6.33 |
| | | S.D. | 12.90 | 7.58 | 27.47 |
| | | n | 3 | 10 | 3 |
| | High | Pre \bar{X} | 59.88 | 60.00 | 68.17 |
| | | Pre S.D. | 8.84 | 11.39 | 6.21 |
| | | \bar{X} | -2.43 | 4.50 | -0.17 |
| | | S.D. | 15.54 | 20.18 | 8.59 |
| | | n | 7 | 6 | 6 |
| Female | Low | Pre \bar{X} | 58.50 | 60.14 | 60.00 |
| | | Pre S.D. | 10.82 | 6.52 | 2.00 |
| | | \bar{X} | -3.50 | 1.29 | -1.53 |
| | | S.D. | 6.14 | 11.31 | 10.21 |
| | | n | 4 | 7 | 3 |
| | High | Pre \bar{X} | 58.20 | 64.83 | 58.50 |
| | | Pre S.D. | 8.35 | 7.41 | 14.08 |
| | | \bar{X} | 1.07 | 1.83 | 6.25 |
| | | S.D. | 9.09 | 4.02 | 23.98 |
| | | n | 14 | 6 | 4 |

TABLE 57.

Means and Standard Deviations of Child's General Adequacy Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's S. R. I. Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Low | | High | |
|--------|---------------|-------|----------|-------|----------|
| | | P.E. | S. R. I. | P.E. | S. R. I. |
| | | Low | High | Low | High |
| Male | Low | | | | |
| | Pre \bar{X} | 59.00 | 62.14 | 62.00 | 64.00 |
| | Pre S.D. | 13.89 | 4.78 | 15.29 | 4.58 |
| | \bar{X} | 9.75 | -6.67 | 1.50 | 1.33 |
| | S.D. | 11.23 | 4.08 | 16.06 | 6.11 |
| | n | 4 | 6 | 10 | 3 |
| | High | | | | |
| | Pre \bar{X} | 61.00 | 61.80 | 71.25 | 62.00 |
| | Pre S.D. | 8.17 | 10.99 | 3.30 | 11.00 |
| | \bar{X} | -3.40 | -3.60 | -1.50 | 5.88 |
| | S.D. | 8.45 | 4.16 | 4.51 | 17.05 |
| | n | 10 | 5 | 4 | 8 |
| Female | Low | | | | |
| | Pre \bar{X} | 60.50 | 65.50 | 62.71 | 64.67 |
| | Pre S.D. | 13.02 | 6.17 | 3.50 | 6.80 |
| | \bar{X} | 1.50 | 0.67 | 2.86 | -6.00 |
| | S.D. | 14.15 | 5.71 | 6.84 | 6.56 |
| | n | 4 | 6 | 7 | 3 |
| | High | | | | |
| | Pre \bar{X} | 63.36 | 61.75 | 61.67 | 67.25 |
| | Pre S.D. | 6.07 | 9.98 | 13.00 | 9.03 |
| | \bar{X} | 3.45 | 5.75 | 4.33 | 2.25 |
| | S.D. | 8.77 | 9.36 | 16.41 | 7.41 |
| | n | 11 | 8 | 6 | 4 |

TABLE 58.

Means and Standard Deviations of Child's Peer Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent S. R. I. Factor Score and Child's Sex and Socio-Economic Status.

| <u>Sex</u> | <u>S.E.S.</u> | <u>Teacher Morale</u> | | | | | |
|------------|---------------|-----------------------|-----------------|-------------|-----------------|-------------|-----------------|
| | | <u>Low</u> | | | <u>High</u> | | |
| | | <u>P.E.</u> | <u>S. R. I.</u> | <u>P.E.</u> | <u>S. R. I.</u> | <u>P.E.</u> | <u>S. R. I.</u> |
| | | <u>Low</u> | <u>High</u> | <u>Low</u> | <u>High</u> | <u>Low</u> | <u>High</u> |
| Male | Low | Pre \bar{X} | 45.33 | 48.57 | | 49.70 | 50.00 |
| | | Pre S.D. | 12.42 | 8.72 | | 12.18 | 6.08 |
| | | \bar{X} | 6.50 | -0.17 | | 3.40 | -2.67 |
| | | S.D. | 14.73 | 6.74 | | 13.60 | 11.37 |
| | High | n | 4 | 6 | | 10 | 3 |
| | | Pre \bar{X} | 50.90 | 61.80 | | 57.00 | 54.25 |
| | | Pre S.D. | 8.59 | 8.56 | | 2.83 | 12.49 |
| | | \bar{X} | -3.20 | 2.00 | | -0.75 | 2.13 |
| | | S.D. | 6.84 | 11.18 | | 6.68 | 13.81 |
| | | n | 10 | 5 | | 4 | 8 |
| Female | Low | Pre \bar{X} | 50.25 | 54.33 | | 54.57 | 53.33 |
| | | Pre S.D. | 11.09 | 4.08 | | 3.78 | 2.52 |
| | | \bar{X} | 6.50 | 0.17 | | 0.14 | -5.67 |
| | | S.D. | 13.08 | 3.54 | | 5.43 | 4.73 |
| | High | n | 4 | 6 | | 7 | 3 |
| | | Pre \bar{X} | 53.82 | 48.38 | | 50.00 | 57.50 |
| | | Pre S.D. | 6.26 | 8.00 | | 13.44 | 6.61 |
| | | \bar{X} | 2.72 | 8.00 | | 6.67 | 0.00 |
| | | S.D. | 7.81 | 9.35 | | 15.09 | 4.32 |
| | | n | 11 | 8 | | 6 | 4 |

TABLE 59.

Means and Standard Deviations of Child's Teacher-School Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's S. R. I. Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | | | |
|--------|---------------|----------------|----------|-------|----------|------|----------|
| | | Low | | | High | | |
| | | P.E. | S. R. I. | P.E. | S. R. I. | P.E. | S. R. I. |
| | | Low | High | Low | High | Low | High |
| Male | Low | | | | | | |
| | Pre \bar{X} | 37.00 | 39.00 | 38.30 | 41.33 | | |
| | Pre S.D. | 8.72 | 8.83 | 8.49 | 3.05 | | |
| | \bar{X} | 3.00 | -4.83 | 2.40 | -3.33 | | |
| | S.D. | 9.83 | 8.47 | 9.83 | 8.50 | | |
| | n | 4 | 6 | 10 | 3 | | |
| | High | | | | | | |
| | Pre \bar{X} | 38.10 | 38.20 | 43.00 | 40.25 | | |
| | Pre S.D. | 5.06 | 6.50 | 4.08 | 10.23 | | |
| | \bar{X} | -2.00 | -1.60 | 1.75 | 3.50 | | |
| | S.D. | 7.83 | 6.58 | 5.77 | 10.66 | | |
| | n | 10 | 5 | 4 | 8 | | |
| Female | Low | | | | | | |
| | Pre \bar{X} | 38.25 | 40.83 | 42.71 | 39.00 | | |
| | Pre S.D. | 8.66 | 5.88 | 4.72 | 3.00 | | |
| | \bar{X} | 4.50 | 1.17 | 1.29 | 1.67 | | |
| | S.D. | 10.50 | 3.49 | 6.10 | 5.77 | | |
| | n | 4 | 6 | 7 | 3 | | |
| | High | | | | | | |
| | Pre \bar{X} | 40.18 | 38.75 | 38.50 | 45.00 | | |
| | Pre S.D. | 5.06 | 7.83 | 14.20 | 3.83 | | |
| | \bar{X} | 1.36 | 3.75 | 5.00 | -2.50 | | |
| | S.D. | 6.96 | 6.94 | 16.31 | 3.00 | | |
| | n | 11 | 8 | 6 | 4 | | |

TABLE 60.

Means and Standard Deviations of Child's Academic Factor Pretest and Change Scores as a Function of the Pre Measures of Teacher's Morale, Parent Educator's S. R. I. Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | | | |
|--------|--------|----------------|-------|-------|-------|-------|-------|
| | | Low | | | High | | |
| | | P.E. | S. | R. I. | P.E. | S. | R. I. |
| | | Low | | High | Low | | High |
| Male | Low | Pre \bar{X} | 59.00 | 56.14 | 62.10 | 62.33 | 62.25 |
| | | Pre S.D. | 12.69 | 9.80 | 12.84 | 3.06 | 15.01 |
| | | \bar{X} | 8.75 | -1.00 | -0.10 | -0.67 | 3.75 |
| | | S.D. | 12.04 | 8.64 | 15.06 | 8.73 | 17.92 |
| | | n | 4 | 6 | 10 | 3 | 8 |
| | High | Pre \bar{X} | 56.60 | 58.40 | 67.75 | 62.25 | |
| | | Pre S.D. | 10.32 | 11.99 | 5.06 | 15.01 | |
| | | \bar{X} | -2.70 | -1.60 | -1.00 | 3.75 | |
| | | S.D. | 11.94 | 4.83 | 7.35 | 17.92 | |
| | | n | 10 | 5 | 4 | 8 | |
| Female | Low | Pre \bar{X} | 56.00 | 61.67 | 59.86 | 60.67 | |
| | | Pre S.D. | 13.02 | 4.84 | 5.96 | 4.93 | |
| | | \bar{X} | 3.50 | -0.17 | 3.00 | -5.33 | |
| | | S.D. | 14.98 | 5.34 | 11.15 | 7.02 | |
| | | n | 4 | 6 | 7 | 3 | |
| | High | Pre \bar{X} | 59.36 | 59.88 | 60.00 | 65.75 | |
| | | Pre S.D. | 7.98 | 7.83 | 12.30 | 10.69 | |
| | | \bar{X} | 1.18 | 4.25 | 5.00 | 1.50 | |
| | | S.D. | 10.01 | 7.81 | 16.45 | 4.65 | |
| | | n | 11 | 8 | 6 | 4 | |

TABLE 61.

Means and Standard Deviations of Child's Physical Factor Pretest and Change Scores as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's S. R. I. Factor Score and Child's Sex and Socio-Economic Status.

| Sex | S.E.S. | Teacher Morale | | | | | |
|--------|---------------|----------------|---------------|-------|---------------|---------------|------|
| | | Low | | High | | P.E. S. R. I. | |
| | | Low | S. R. I. High | Low | S. R. I. High | Low | High |
| Male | Low | | | | | | |
| | Pre \bar{X} | 36.67 | 45.14 | 44.90 | 45.00 | | |
| | Pre S.D. | 9.02 | 4.06 | 12.04 | 6.25 | | |
| | \bar{X} | 10.00 | -0.67 | 3.60 | -2.00 | | |
| | S.D. | 13.03 | 4.23 | 11.92 | 5.29 | | |
| | n | 4 | 6 | 10 | 3 | | |
| | High | | | | | | |
| | Pre \bar{X} | 44.80 | 45.00 | 50.25 | 48.13 | | |
| | Pre S.D. | 6.94 | 7.28 | 3.50 | 12.28 | | |
| | \bar{X} | -1.00 | 2.40 | -1.25 | 2.25 | | |
| | S.D. | 6.46 | 9.10 | 8.42 | 13.88 | | |
| | n | 10 | 5 | 4 | 8 | | |
| Female | Low | | | | | | |
| | Pre \bar{X} | 46.25 | 50.33 | 49.86 | 46.00 | | |
| | Pre S.D. | 11.06 | 2.73 | 3.72 | 5.57 | | |
| | \bar{X} | 3.75 | -1.50 | -2.71 | -0.33 | | |
| | S.D. | 12.94 | 2.59 | 4.42 | 10.07 | | |
| | n | 4 | 6 | 7 | 3 | | |
| | High | | | | | | |
| | Pre \bar{X} | 47.63 | 46.13 | 45.50 | 51.75 | | |
| | Pre S.D. | 6.25 | 5.62 | 12.21 | 5.85 | | |
| | \bar{X} | 3.18 | 4.88 | 5.17 | 1.00 | | |
| | S.D. | 7.61 | 6.01 | 18.40 | 5.02 | | |
| | n | 11 | 8 | 6 | 4 | | |

Analysis of Covariance of the Child's General Adequacy Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Interpersonal Adequacy Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|--|-------------------|-------|-------------|------|
| Teacher's Morale (I) | 64.71 | 1 | 64.71 | 0.44 |
| P. E.'s Interpersonal Adequacy Factor (J) | 81.74 | 1 | 81.74 | 0.56 |
| Child's Sex (K) | 49.49 | 1 | 49.49 | 0.34 |
| Child's Socio-Economic Status (L) | 78.77 | 1 | 78.77 | 0.54 |
| IJ | 15.09 | 1 | 15.09 | 0.10 |
| IK | 226.38 | 1 | 226.38 | 1.54 |
| IL | 29.83 | 1 | 29.83 | 0.20 |
| JK | 38.22 | 1 | 38.22 | 0.26 |
| JL | 144.72 | 1 | 144.72 | 0.99 |
| KL | 57.29 | 1 | 57.29 | 0.39 |
| IJK | 91.88 | 1 | 91.88 | 0.63 |
| IJL | 0.13 | 1 | 0.13 | 0.00 |
| IKL | 65.71 | 1 | 65.71 | 0.45 |
| JKL | 4.93 | 1 | 4.93 | 0.03 |
| IJKL | 75.59 | 1 | 75.59 | 0.51 |
| Error | 11454.68 | 78 | 146.85 | |

TABLE 63.

Analysis of Covariance of Child's Peer Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Interpersonal Adequacy Factor Score and Child's Sex and Socio-Economic Status.

| | <u>Source</u> | <u>Sum of Squares</u> | <u>D. F.</u> | <u>Mean Square</u> | <u>F</u> |
|--|---------------|---------------------------|--------------|--------------------|----------|
| Teacher's Morale (I) P. E.'s Interpersonal Adequacy Factor (J) | | 51.16 | 1 | 51.16 | 0.46 |
| | | 15.53 | 1 | 15.53 | 0.14 |
| Child's Sex (K) Child's Socio-Economic Status (L) | | 42.32 | 1 | 42.32 | 0.38 |
| | | 13.39 | 1 | 13.39 | 0.12 |
| IJ IK | | 86.97 | 1 | 86.97 | 0.78 |
| | | 114.80 | 1 | 114.80 | 1.03 |
| IL JK | | 24.05 | 1 | 24.05 | 0.22 |
| | | 58.43 | 1 | 58.43 | 0.53 |
| JL KL | | 55.71 | 1 | 55.71 | 0.50 |
| | | 124.18 | 1 | 124.18 | 1.11 |
| IJK IJL | | 99.36 | 1 | 99.36 | 0.89 |
| | | 77.24 | 1 | 77.24 | 0.69 |
| IKL JKL | | 1.46 | 1 | 1.46 | 0.01 |
| | | 39.73 | 1 | 39.73 | 0.36 |
| IJKL | | 403.99 | 1 | 403.99 | 3.61 |
| Error | | 8719.99 | 78 | 111.79 | |

TABLE 64.

Analysis of Covariance of the Child's Teacher-School Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Interpersonal Adequacy Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|--|-------------------|-------|-------------|------|
| Teacher's Morale (I) | 35.75 | 1 | 35.75 | 0.47 |
| P. E.'s Interpersonal Adequacy Factor (J) | 66.68 | 1 | 66.68 | 0.87 |
| Child's Sex (K) | 99.02 | 1 | 99.02 | 1.29 |
| Child's Socio-Economic Status (L) | 0.17 | 1 | 0.17 | 0.00 |
| IJ | 15.96 | 1 | 15.96 | 0.21 |
| IK | 177.27 | 1 | 177.27 | 2.31 |
| IL | 1.73 | 1 | 1.73 | 0.02 |
| JK | 23.27 | 1 | 23.27 | 0.30 |
| JL | 19.97 | 1 | 19.97 | 0.26 |
| KL | 17.77 | 1 | 17.77 | 0.23 |
| IJK | 0.59 | 1 | 0.59 | 0.01 |
| IJL | 15.66 | 1 | 15.66 | 0.20 |
| IKL | 7.50 | 1 | 7.50 | 0.10 |
| JKL | 0.23 | 1 | 0.23 | 0.00 |
| IJKL | 172.75 | 1 | 172.75 | 2.25 |
| Error | 5991.64 | 78 | 76.82 | |

TABLE 65.

Analysis of Covariance of the Child's Academic Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Interpersonal Adequacy Factor Score, and Child's Sex and Socio-Economic Status.

| <u>Source</u> | <u>Sum of Squares</u> | <u>D. F.</u> | <u>Mean Square</u> | <u>F</u> |
|--|---------------------------|--------------|--------------------|----------|
| Teacher's Morale (I) | 4.21 | 1 | 4.21 | 0.03 |
| P. E.'s Interpersonal Adequacy Factor (J) | 23.90 | 1 | 23.90 | 0.14 |
| Child's Sex (K) | 20.89 | 1 | 20.89 | 0.13 |
| Child's Socio-Economic Status (L) | 12.50 | 1 | 12.50 | 0.08 |
| IJ | 24.31 | 1 | 24.31 | 0.15 |
| IK | 17.84 | 1 | 17.84 | 0.11 |
| IL | 126.42 | 1 | 126.42 | 0.76 |
| JK | 13.37 | 1 | 13.37 | 0.08 |
| JL | 20.61 | 1 | 20.61 | 0.12 |
| KL | 37.01 | 1 | 37.01 | 0.22 |
| IJK | 256.47 | 1 | 256.47 | 1.54 |
| IJL | 0.39 | 1 | 0.39 | 0.00 |
| IKL | 57.56 | 1 | 57.56 | 0.35 |
| JKL | 1.67 | 1 | 1.67 | 0.01 |
| IJKL | 149.26 | 1 | 149.26 | 0.90 |
| Error | 12985.15 | 78 | 166.51 | |

TABLE 66.

Analysis of Covariance of the Child's Physical Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Interpersonal Adequacy Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|--|-------------------|-------|-------------|------|
| Teacher's Morale (I) | 64.30 | 1 | 64.30 | 0.68 |
| P. E.'s Interpersonal Adequacy Factor (J) | 3.73 | 1 | 3.73 | 0.04 |
| Child's Sex (K) | 1.47 | 1 | 1.47 | 0.02 |
| Child's Socio-Economic Status (L) | 2.45 | 1 | 2.45 | 0.03 |
| IJ | 8.46 | 1 | 8.46 | 0.09 |
| IK | 11.26 | 1 | 11.26 | 0.12 |
| IL | 6.26 | 1 | 6.26 | 0.07 |
| JK | 156.94 | 1 | 156.94 | 1.66 |
| JL | 92.46 | 1 | 92.46 | 0.98 |
| KL | 149.55 | 1 | 149.55 | 1.58 |
| IJK | 50.93 | 1 | 50.93 | 0.54 |
| IJL | 27.97 | 1 | 27.97 | 0.30 |
| IKL | 4.22 | 1 | 4.22 | 0.04 |
| JKL | 37.27 | 1 | 37.27 | 0.39 |
| IJKL | 221.15 | 1 | 221.15 | 2.34 |
| Error | 7366.64 | 78 | 94.44 | |

TABLE 67.

Analysis of Covariance of the Child's Teacher-School Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Competence Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|-----------------------------------|-------------------|-------|-------------|------|
| Teacher's Morale (I) | 91.48 | 1 | 91.48 | 1.22 |
| P. E.'s Competence Factor (J) | 75.49 | 1 | 75.49 | 1.01 |
| Child's Sex (K) | 71.75 | 1 | 71.75 | 0.96 |
| Child's Socio-Economic Status (L) | 0.81 | 1 | 0.81 | 0.01 |
| IJ | 5.64 | 1 | 5.64 | 0.08 |
| IK | 76.63 | 1 | 76.63 | 1.02 |
| IL | 1.29 | 1 | 1.29 | 0.02 |
| JK | 84.70 | 1 | 84.70 | 1.13 |
| JL | 13.33 | 1 | 13.33 | 0.18 |
| KL | 2.16 | 1 | 2.16 | 0.03 |
| IJK | 25.62 | 1 | 25.62 | 0.34 |
| IJL | 20.92 | 1 | 20.92 | 0.28 |
| IKL | 13.99 | 1 | 13.99 | 0.19 |
| JKL | 13.18 | 1 | 13.18 | 0.18 |
| IJKL | 226.32 | 1 | 226.32 | 3.02 |
| Error | 5850.26 | 78 | 75.00 | |

TABLE 68.

Analysis of Covariance of the Child's Academic Factor Change Score as a
Function of the Pre-Measures of Teacher's Morale, Parent Educator's
Competence Factor Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|-----------------------------------|-------------------|-------|-------------|------|
| Teacher's Morale (I) | 6.59 | 1 | 6.59 | 0.04 |
| P. E.'s Competence Factor (J) | 39.07 | 1 | 39.07 | 0.24 |
| Child's Sex (K) | 1.53 | 1 | 1.53 | 0.01 |
| Child's Socio-Economic Status (L) | 0.86 | 1 | 0.86 | 0.01 |
| IJ | 24.42 | 1 | 24.42 | 0.15 |
| IK | 0.41 | 1 | 0.41 | 0.00 |
| IL | 71.69 | 1 | 71.69 | 0.44 |
| JK | 103.52 | 1 | 103.52 | 0.64 |
| JL | 4.39 | 1 | 4.39 | 0.03 |
| KL | 286.48 | 1 | 286.48 | 1.76 |
| IJK | 217.37 | 1 | 217.37 | 1.34 |
| IJL | 72.79 | 1 | 72.79 | 0.44 |
| IKL | 81.56 | 1 | 81.56 | 0.50 |
| JKL | 15.89 | 1 | 15.89 | 0.10 |
| IJKL | 431.63 | 1 | 431.63 | 2.65 |
| Error | 12689.58 | 78 | 162.69 | |

TABLE 69.

Analysis of Covariance of the Child's General Adequacy Factor Change Score as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social Reaction Inventory Score and Child's Sex and Socio-Economic Status.

| | <u>Source</u> | <u>Sum of Squares</u> | <u>D. F.</u> | <u>Mean Square</u> | <u>F</u> |
|---|---------------|-----------------------|--------------|--------------------|----------|
| Teacher's Morale (I) P. E.'s Social Reaction Inventory (J) | | 3.84 | 1 | 3.84 | 0.03 |
| | | 0.65 | 1 | 0.65 | 0.00 |
| Child's Sex (K) Child's Socio-Economic Status (L) | | 16.45 | 1 | 16.45 | 0.11 |
| | | 39.59 | 1 | 39.59 | 0.27 |
| IJ IK | | 32.87 | 1 | 32.87 | 0.22 |
| | | 95.78 | 1 | 95.78 | 0.65 |
| IL JK | | 23.85 | 1 | 23.85 | 0.16 |
| | | 38.69 | 1 | 38.69 | 0.26 |
| JL KL | | 273.99 | 1 | 273.99 | 1.87 |
| | | 185.42 | 1 | 185.42 | 1.27 |
| IJK IJL | | 184.53 | 1 | 184.53 | 1.26 |
| | | 0.17 | 1 | 0.17 | 0.00 |
| IKL JKL | | 76.64 | 1 | 76.64 | 0.52 |
| | | 6.18 | 1 | 6.18 | 0.04 |
| IJKL | | 2.39 | 1 | 2.39 | 0.02 |
| Error | | 11422.57 | 78 | 146.44 | |

TABLE 70.

Analysis of Covariance of the Child's Peer Factor Change Score as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social Reaction Inventory Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|--------------------------------------|----------------|-------|-------------|------|
| Teacher's Morale (I) | 123.89 | 1 | 123.89 | 1.09 |
| P.E.'s Social Reaction Inventory (J) | 50.12 | 1 | 50.12 | 0.44 |
| Child's Sex (K) | 34.45 | 1 | 34.45 | 0.30 |
| Child's Socio-Economic Status (L) | 33.53 | 1 | 33.53 | 0.29 |
| IJ | 31.85 | 1 | 31.85 | 0.28 |
| IK | 36.41 | 1 | 36.41 | 0.32 |
| IL | 64.26 | 1 | 64.26 | 0.56 |
| JK | 16.13 | 1 | 16.13 | 0.14 |
| JL | 330.91 | 1 | 330.91 | 2.90 |
| KL | 166.39 | 1 | 166.39 | 1.46 |
| IJK | 14.61 | 1 | 14.61 | 0.13 |
| IJL | 56.67 | 1 | 56.67 | 0.50 |
| IKL | 22.93 | 1 | 22.93 | 0.20 |
| JKL | 37.50 | 1 | 37.50 | 0.33 |
| IJKL | 77.28 | 1 | 77.28 | 0.68 |
| Error | 8902.85 | 78 | 114.14 | |

TABLE 71.

Analysis of Covariance of the Child's Teacher-School Factor Change Score as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social Reaction Inventory Score and Child's Sex and Socio-Economic Status.

| <u>Source</u> | <u>Sum of Squares</u> | <u>D. F.</u> | <u>Mean Square</u> | <u>F</u> |
|---------------------------------------|-----------------------|--------------|--------------------|----------|
| Teacher's Morale (I) | 8.15 | 1 | 8.15 | 0.11 |
| P. E.'s Social Reaction Inventory (J) | 53.50 | 1 | 53.50 | 0.70 |
| Child's Sex (K) | 87.26 | 1 | 87.26 | 1.14 |
| Child's Socio-Economic Status (L) | 4.69 | 1 | 4.69 | 0.06 |
| IJ | 7.19 | 1 | 7.19 | 0.09 |
| IK | 68.91 | 1 | 68.91 | 0.90 |
| IL | 3.14 | 1 | 3.14 | 0.04 |
| JK | 3.83 | 1 | 3.83 | 0.05 |
| JL | 46.32 | 1 | 46.32 | 0.61 |
| KL | 14.35 | 1 | 14.35 | 0.19 |
| IJK | 5.02 | 1 | 5.02 | 0.07 |
| IJL | 41.93 | 1 | 41.93 | 0.55 |
| IKL | 49.31 | 1 | 49.31 | 0.65 |
| JKL | 50.25 | 1 | 50.25 | 0.66 |
| IJKL | 113.79 | 1 | 113.79 | 1.49 |
| Error | 5953.79 | 78 | 76.33 | |

TABLE 72.

Analysis of Covariance of the Child's Academic Factor Change Score as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social Reaction Inventory Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|---------------------------------------|----------------|-------|-------------|------|
| Teacher's Morale (I) | 2.76 | 1 | 2.76 | 0.02 |
| P. E.'s Social Reaction Inventory (J) | 2.40 | 1 | 2.40 | 0.01 |
| Child's Sex (K) | 10.72 | 1 | 10.72 | 0.06 |
| Child's Socio-Economic Status (L) | 8.10 | 1 | 8.10 | 0.05 |
| IJ | 1.94 | 1 | 1.94 | 0.01 |
| IK | 5.82 | 1 | 5.82 | 0.03 |
| IL | 60.26 | 1 | 60.26 | 0.36 |
| JK | 144.88 | 1 | 144.88 | 0.87 |
| JL | 152.35 | 1 | 152.35 | 0.91 |
| KL | 76.99 | 1 | 76.99 | 0.46 |
| IJK | 50.80 | 1 | 50.80 | 0.30 |
| IJL | 0.39 | 1 | 0.39 | 0.00 |
| IKL | 32.74 | 1 | 32.74 | 0.20 |
| JKL | 9.87 | 1 | 9.87 | 0.06 |
| IJKL | 24.65 | 1 | 24.65 | 0.15 |
| Error | 13069.68 | 78 | 167.56 | |

TABLE 73.

Analysis of Covariance of the Child's Physical Factor Change Score as a Function of the Pre-Measures of Teacher's Morale, Parent Educator's Social Reaction Inventory Score and Child's Sex and Socio-Economic Status.

| Source | Sum of Squares | D. F. | Mean Square | F |
|---------------------------------------|----------------|-------|-------------|------|
| Teacher's Morale (I) | 79.32 | 1 | 79.32 | 0.82 |
| P. E.'s Social Reaction Inventory (J) | 19.20 | 1 | 19.20 | 0.20 |
| Child's Sex (K) | 2.48 | 1 | 2.48 | 0.03 |
| Child's Socio-Economic Status (L) | 6.38 | 1 | 6.38 | 0.07 |
| IJ | 14.35 | 1 | 14.35 | 0.15 |
| IK | 2.36 | 1 | 2.36 | 0.02 |
| IL | 26.22 | 1 | 26.22 | 0.27 |
| JK | 1.98 | 1 | 1.98 | 0.02 |
| JL | 164.28 | 1 | 164.28 | 1.70 |
| KL | 159.80 | 1 | 159.80 | 1.66 |
| IJK | 2.83 | 1 | 2.83 | 0.03 |
| IJL | 70.98 | 1 | 70.98 | 0.74 |
| IKL | 27.48 | 1 | 27.48 | 0.28 |
| JKL | 91.23 | 1 | 91.23 | 0.95 |
| IJKL | 79.25 | 1 | 79.25 | 0.82 |
| Error | 7525.04 | 78 | 96.47 | |

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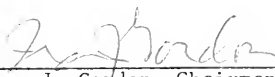
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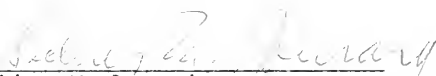
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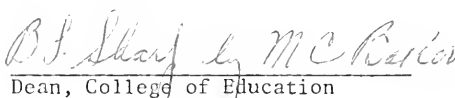
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December, 1972



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